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NOTES

These Notes, the last for which the present editor will ·onsible, are written at a table burdened with files relating to the partition of the cou....y into a new India and a Pakistan. Beyond the files, the wall is covered by a large map of the old India, upon which the new lines are not yet firmly drawn. In the political context, the relationship of files to map is of no concern to *Ancient India* or the Department which it represents. But there are other contexts in which the new situation gives rise to a legitimate curiosity; and, in a spirit of complete political detachment, these notes may opportunely touch upon certain cultural or historical aspects of the partition which are of concern alike to India and to Pakistan and are not altogether without a wider interest.

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First, a word may be said on the administrative side. In the new India, the Archaeological Survey remains unchanged, save for minor adjustments arising out of the loss of the greater part of its old Frontier Circle and of a lesser part of its Eastern Circle The two lost territories will in future be a combined charge upon the new Archaeological Department which Pakistan has assembled from the former Muslim staff of the Survey, with headquarters at Karachi. The official divorcement of the two departments is complete, but a close unofficial liaison between them is essential to the well-being of both. I have no doubt that, when the general situation clears, this liaison will be established and firmly maintained.

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If we now impose the new boundaries upon the archaeological map, the picture is an interesting one. Pakistan is found to include almost the whole of the known extent of the earliest civilization of India, that of the Indus Valley. It includes also Gandhāra and the homeland, therefore, of a phase of art which spread its influence as far south as remote Amarāvatī; and, with Gandhāra, Chārsada, once Gandhāra's metropolis and now one of the unexplored key-sites of Asia; likewise Taxila, Gandhāra's provincial capital, ancient meeting-place of east and west; and a host of Buddhist stūpas and monasteries, of which Takht-i-Bāhī and the neighbouring Sahri-Bahlol are merely notable examples. Pakistan has no reason to complain of its archaeology: except in one anomalous respect. Almost all the Mohammadan monuments of the first importance remain in India. The battered Moghul fort and the remains of Jahāngīr's tomb at Lahore, even the two beautiful tiled Persian mosques at Tatta in Sind, are a poor sample of the achievement which also produced the forts and mosques and tombs of Delhi and Agra, Akbar's royal city of Fatehpur Sikrī, the tombs of Sāsāram, the mosques and tombs of Ahmadabad, Jaunpur, Bijāpur, Pāṇḍua—the list need not be extended. All these, which are still a part of India, will by India be worthily cherished as an integral portion of her cultural heritage. But the anomaly is not the less a remarkable one, and will be further considered in a later paragraph.

Meanwhile, in so far as the new India is concerned, another archaeological aspect of the partition is worthy of constructive thought. In the past, Indian archaeology has concentrated its major efforts upon the north-western region, upon what is now Pakistan. The discovery of the Indus Civilization was itself a sufficient incentive to the Archaeological Survey to undertake large-scale excavations at the two principal Indus sites, Harappā and Mohenjo-daro, and to supplement this work by widespread exploration in the plains and hills of the old Indian borderland. Further, the annals and coinage of Alexander the Great and his successors, relating primarily to the North-West, introduced an attractive measure of local precision into this corner of a country whose own great literature is marked generally by qualities other than a developed historical sense. The vivid records of the Chinese travellers, amplified by Cunningham's brilliant geographical fieldwork in the third quarter of the nineteenth century, also lured the archaeologist into the North and North-West along the tracks of Buddhist monasticism. Taxila combined certain of these with other advantages, and for many years shared with the Indus Valley the highest priority in field-research. Other work was done intermittently in eastern and southern India, but always on a very much smaller scale. The North-West was paramount.

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Now all this is changed. Mohenjo-daro, Harappā, Taxila alike have gone from India. The outlook is re-adjusted and new problems come into focus. We know very much more archaeologically about the Indus, which has given the new India perhaps little more than a name, than about the Ganges which may almost be said to have given India a faith. Let us turn now to the valley of the Ganges and devote to it something of the attention which in the past has been lavished so fruitfully upon the valley of the Indus.

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And then there is South or Peninsular India. The problems of the South differ in many respects from those of the North, and their systematic exploration has scarcely begun. Here again, a reorientation of effort will now be both feasible and timely. In previous Notes I have emphasized the potential importance of Peninsular archaeology, and in 1945 and 1947 the Archaeological Survey transferred its field-activities to that region, with important results.[1] It is to be hoped and expected that in future years this work will be developed on an adequate scale, planned consecutively from year to year in such a fashion that a steady and organic growth of knowledge is assured. Once again, I may refer to previous Notes on this matter.[2]

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Lastly, I turn once more to the archaeological map of India, with the concentrated mass of Pakistan to the north-west of it, that strange island of Islam far away in eastern Bengal, and between the two the diffuse expanse of the Hindustan plain. Whatever political view may be held by the individual in regard either to the general principle of partition or to its application in detail, the solid fact remains that it has happened; and, like all such happenings, it has a historical basis which is relevant to our studies. But it presents a feature which, to the student of human distributions, is unusual and demands explanation. A major grouping of population is commonly delimited by recognizable geographical factors, by the alignment of mountain or sea or swamp or desert or forest. Islam in India is

[1] *Ancient India*, no. 2, pp. 17ff.; and below, pp. 181ff.

[2] Ibid., no. 2, p. 1; no. 3, pp. 2ff.

delimited by none of these boundaries. It ceases along lines drawn on the map by boundary commissions, not by geography or physiography. Why?

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The answer is in essence simple enough. The controlling factor in this abnormal distribution has been the vast expansiveness of the Northern Plains in proportion to the limited total bulk of the Islamic populations which intruded into them from time to time during the middle ages. Just as, in many parts of Asia, rivers sometimes of considerable size may flow for a few hundred miles and then fade out through inanition into the illimitable landscape—rivers such as the Helmand or the Tarim or the Balkh system—so stream after stream of Muslim invaders has entered and dissolved into those interminable expanses which for hundreds of miles on end stretch from the Punjab to Bengal, with the Himalayan barrier to the north and the range of the Vindhyas far to the south. No succession of invaders from the little lands of the western plateaux could fill such a vastness. Here was no question of overrunning a limited lowland to the foot-hills of its natural frontiers. It was a question simply of pushing forward until impetus ceased and inanition supervened. The sole frontier was that imposed by the stamina and discipline of the invader.

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This is obviously an over-simplification of a complex historical phase. It takes no account of the marchings and countermarchings of hired or conscript armies at the bidding of wealthy and autocratic rulers—armies which, incidentally, enabled those rulers to set up their courts in the fertile riverine plains of Hindustan at or beyond the extreme limit of substantive settlement, at Delhi and Agra; or, as in eastern Bengal, made it possible for far-flung military adventurers to establish a little independent Mohammadan kingdom, consolidated by forced conversion and secured from effective intervention by the eastern jungles of those same vast plains. But with the decline and fall of the artificially-sustained Moghul court, Delhi and Agra became derelict museum-pieces; Islam as a dominant community in India shrank back on the one hand to the consolidated semi-alien Muslim population of the North-West within the limits of the original mass-penetrations, and on the other hand to the by-now equally consolidated nucleus of Hindu-Muslim 'converts' in the East.

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The essence of the story is thus that of the triumph of sheer acreage over the puny efforts of man. The academic lesson is that, to the delimiting factors of mountain, desert and the rest, the physiographer must not omit to add the delimiting factor of human fatigue. Even today a journey across the Northern Plains on some of the best roads of India is one not lightly to be undertaken. In the middle ages, with a population probably less than a quarter of today's total, much of this great region must have been covered as densely with jungle as in the days of the epics, when Rāma and the Pāṇḍavas spent years of their lives in traversing 'the dark and pathless forest', the *Mahāvana*. The almost complete opening-up of the plains has in modern times facilitated transit but has at the same time aggravated the problem of the delimitation of human groups. The line between man and man has thereby become more and more artificial; and the limit of endurance of an Afghan freebooter in the twelfth or thirteenth century or of a Persian in the sixteenth becomes progressively a less insistent sanction for a political boundary as we approach the more expansive twentieth. The detached archaeologist and historian of the future will thus look back upon the partition of India as a challenging experiment in the domination of geography by man. It is to be hoped devoutly that the experiment will not partake meanwhile of more than its share of tribulation.

R. E. M. W.

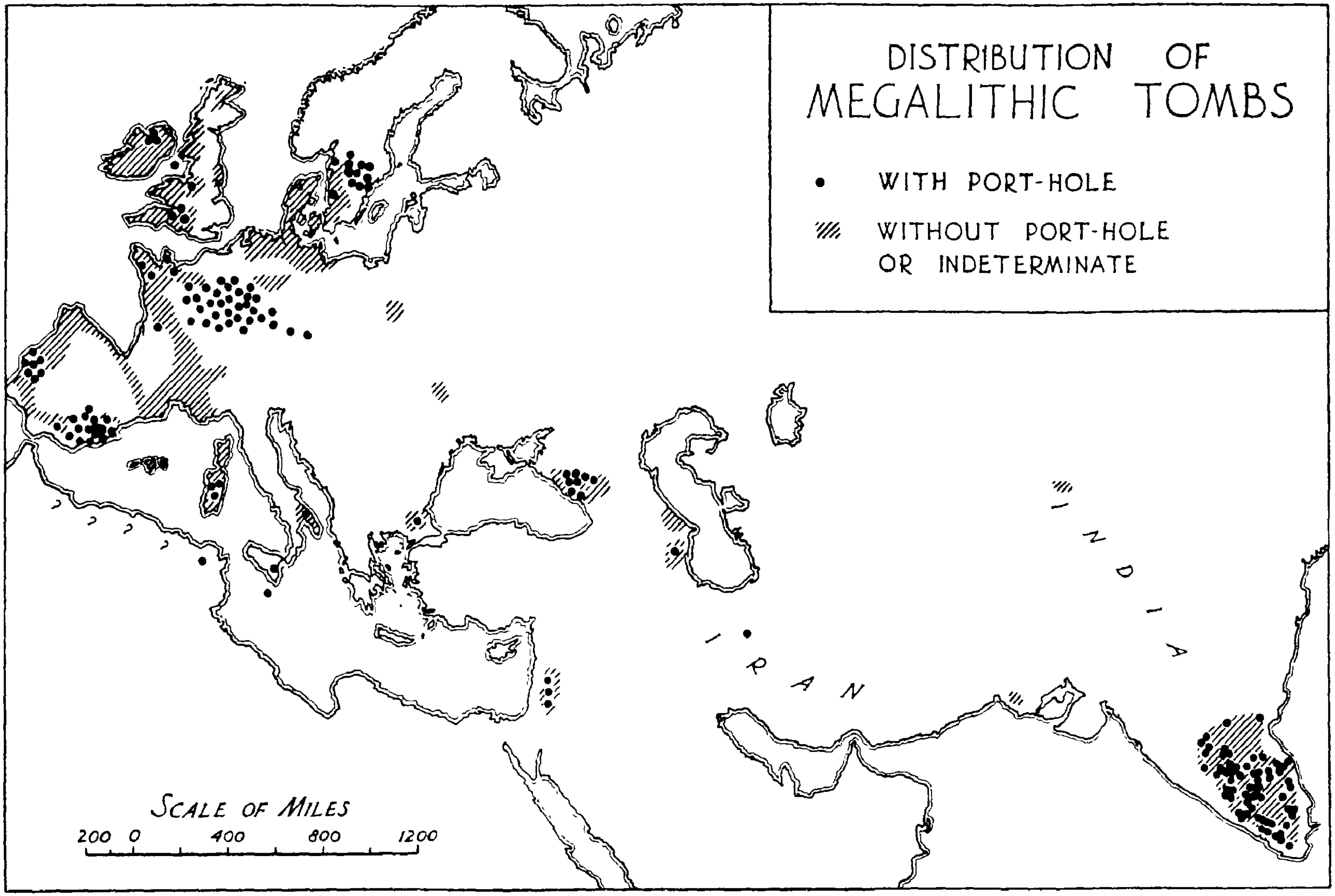

DISTRIBUTION OF
MEGALITHIC TOMBS
WITH PORT-HOLE
WITHOUT PORT-HOLE
OR INDETERMINATE
INDIA
IRAN
SCALE OF MILES
200 0 400 800 1200

FIG. 1

MEGALITHS

By V. Gordon Childe

'Megalithic' tombs and related monuments constructed usually of large slabs or blocks of stone, either in their natural form or roughly quarried and trimmed, are more abundant in the Deccan and South India than any other category of ancient structures. That fact in itself gives them a special claim to the attention of Indian archaeology. But they have a potential importance also in a wider context; for many of them show a similarity, seemingly amounting to kinship, with megaliths in other parts of the world—in the lands bordering upon the Mediterranean and the Atlantic, in the Caucasus, in Iran. The significance of this apparent interrelationship over many thousands of miles of the earth's surface cannot yet be appraised, but the problem is one which stirs the imagination. A preliminary need is more knowledge of the character and distribution of the megaliths of India, and a detailed study of them has accordingly been undertaken by the Archaeological Survey of India. To this study the following paper by the Director of the Institute of Archaeology in the University of London, dealing with important international problems of classification and distribution, constitutes an opportune introduction.

THE term megalithic was originally introduced by antiquaries to describe a fairly easily definable class of monuments in western and northern Europe, consisting of huge, undressed stones and termed in Celtic dolmens, cromlechs and menhirs. It has subsequently been extended to cover a far more miscellaneous collection of erections and even excavations all over the Old World and into the New.

Now what criteria have in fact been used in applying the term in the original region? Not, I fear, that indicated by etymology—the magnitude (*megathos*) of the stones (*lithoi*) employed. For instance, New Kingdom temples and statues are often composed of larger stones than most admittedly megalithic structures in England or Denmark, but they are not normally classified under this heading. Nor are the defences of Boghaz-keui despite the size of some of the stones employed there. Is it the rudeness of the stones, the use of *pierres brutes*? The architecture of Tiryns could be thus described, but in fact the term Cyclopean has been deliberately preferred to megalithic. Conversely, quite a number of monuments still studied as megalithic are composed of, or at least comprise, well dressed and even sculptured stones—for instance the Giants' Tombs in Sardinia, and many Caucasian 'dolmens'.

In practice the term is applied only to monuments the use of which is known imperfectly or not at all, but which we presume were erected for some superstitious, ritual or religious end. Thereby we admit that the basis of classification is not merely material or magnitude, but also function. Now after all function is the proper basis for classification in a science that aims at classifying human societies. But this particular sort of function can never be completely known in the case of extinct and preliterate societies, and such were the societies by which all or nearly all the monuments originally classed as megalithic were erected.

In default of exact knowledge of function, archaeologists have had to appeal to complexes of traits regularly associated with the monuments concerned. In the case of the monuments once termed dolmens, fairly definite and coherent traits have been detected and classified: all were sepulchral and contained some sort of burial furniture. The traits

associated with cromlechs or stone-circles are much less coherent. Satisfactory associations for menhirs or standing stones are scarcely obtainable. But as soon as we admit associated traits to the basis of classification, the original criteria of size and substance begin to loose their significance, and quite different principles emerge. Let me illustrate the consequent changes of method by reference to one group in the original triad—the dolmens that were all at least tombs.

On the coasts of the Atlantic, the North Sea and the Baltic megalithic tombs exhibit a continuous distribution in space. But they do not disclose a single culture in the usual sense of a complex of traits—similar pottery, tools, weapons and ornaments regularly recurring together in these tombs and not in other sepulchral associations. Only one class of pottery, the so-called Beakers, is at all often found in these tombs all over the province. But there is very definite evidence from Denmark, Brittany and Britain, that Beaker pottery and its associates were not used by the original builders of the tombs concerned. Moreover in Central Europe and even Britain the Beaker-complex is normally found in separate graves that are in no possible sense megalithic. There are still some rather general agreements in the ceramic furniture of megalithic tombs in Western Europe: what Mrs. Hawkes[1] calls 'channelled ware' is found in several tombs in South France, Brittany and round the North Channel and the Clyde. Examples from Spain and Portugal come from natural caves. And some tombs from Portugal to Orkney contain simple leathery pots of a general Western aspect. But neither in the Paris basin nor in Northern Europe do significant analogies to either class occur. On the other hand Western pots are by no means confined to the megalithic province, but are common also on the Swiss Lakes and in Upper Italy. Again, considering weapons, the leaf-shaped type of arrow-head that alone is found in British megalithic tombs is never found in Swedish or Danish tombs at all, and represents only 9% of those from Portuguese and 17% from Almerian ones.

In the Spanish Peninsula hollow-based or tanged-and-barbed points are commoner than leaf-shaped, and we encounter also transverse or chisel-ended arrow-heads, *petits tranchets*, as the French call them. Such never occur in British megalithic tombs, but they are found in such tombs in central France, Denmark, northern Europe and occasionally in Brittany. Such arrowheads are, however, by no means confined to megalithic cultures or periods but were widely distributed in pre-neolithic times before any megalithic tombs were being built in Europe, and were probably adopted by the megalith-builders in each area from earlier hunter-fishers of the Tardenoisean, Ertebølle or other mesolithic culture. Finally there was no 'megalithic' *race* as far as anthropometric studies of the skeletons from European 'dolmens' can tell; though dolichocranial skulls predominate in European megalithic tombs, these are, save in Great Britain, generally mixed with round-heads.[2]

An attempt to subdivide megalithic tombs on the basis of plans supplemented by accessory features like the form of the covering tumulus does not help us; by associating such architectural subdivisions with assemblages of relics, we are not left with a couple of comprehensive but widely distributed cultures. The favourite device has been to distinguish simple dolmens or *dysser*, passage graves (*dolmens à galerie*) and long cists (*allées couvertes*). Under the naïve evolutionary conceptions of the mid-nineteenth century, it was easily assumed that the simple dolmens were the earliest megalithic sepulchres. And in Denmark some simple dolmens—of a rather specialized form—really proved to be earlier

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[1] 'Channelled ware in Western Europe', *Archaeological Journal*, XCV (1938), 132-164.

[2] C. S. Coon, *The Races of Europe* (New York, 1939), summarizes most of the material. This is very scanty save for central France, Denmark (on which see also Brøndsted, *Danmarks Oldtid*, i (Copenhagen, 1938), p. 313) and Britain.

than any of the more elaborate megalithic tombs when judged by their furniture. This old evolutionary idea has lasted a long time, but more critical and exact examination of the monuments in several regions has now revealed that the allegedly simple dolmens are just the most stubborn remnants of more complex structures. For example in 1939 Radford and I [1] examined a simple dolmen near Birori in Sardinia that had been taken by Duncan Mackenzie as representative of the start of an evolutionary series leading up to the classical Giant's Grave. We detected both additional stones that had gone to make up the original elongated chamber and part of the façade of a normal Giant's Grave that had been despoiled. More than twenty years ago Crawford [2] had pointed out that the dolmens of Wessex and the Cotswolds are just the chambers of long barrows of the complex Cotswold-Severn type that had lost their barrows. Now Daniel [3] has established the same origin in ruination for the rest of the English dolmens, and Estyn Evans [4] for those of Ulster. In other cases, notably on both sides of the Pyrenees, it has been shown that tombs of the simplest type contain exclusively relics of later date than those derivable from the more elaborate tombs in the same region.[5] So these alleged dolmens have been transferred to the class of 'cists', to which we shall shortly return.

Similarly the distinction between passage-grave and long cist is hard to apply in many instances. Are the magnificent tombs like Cueva Menga and Cueva da Viera near Antequera,[6] or the Orkney stalled-cairns,[7] passage-graves or long cists? The assumption that long cairns go with long cists and round cairns with passage-graves has led Daniel [8] into some curious special pleading to explain away the very long cairns that cover passage-graves in the far north of Scotland and to transform tombs like Uley and Stoney Littleton in the Severn group into long cists. The fact is that only one highly specialized form of megalithic tomb, the Paris cist, is associated with a distinctive culture over more than a limited local province [9]; tombs of the Paris type do contain significantly similar assemblages of relics, not only in the Paris basin, but also as far west as Jersey and as far east as Sweden. But the same assemblage recurs as near as the Marne in tombs, of rather the same plan indeed, but cut in the chalk.

In reality once we admit plans and relics as a basis of classification, the original idea of an overground structure built with very big stones, begins to fade out of the picture. For instance on the granitic plateau of Estramadura in Portugal we have a classical series of tombs consisting of a polygonal chamber and narrow entrance-passage composed of huge

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1 *Antiquity*, XIII, 376.

2 *The Long Barrows of the Cotswolds*, p. 21.

3 *Antiquity*, XI, 183.

4 *A Preliminary Survey of the Ancient Monuments of Northern Ireland* (Belfast, 1940), p. xv.

5 Pericot, *La Civilización megalitica catalana* (Barcelona, 1925). But in Almeria (south-eastern Spain) there are cists, round or rectangular covered by round cairns that are regarded by Siret and Leisner ('Die Megalithgraber der iberischen Halbinsel', *Römischgermanische Forschungen*, 17, 1943) as older than the local passage-graves. Though used as collective tombs, these have no passage of entrance and are not usually termed megalithic—though perhaps they deserve the term.

6 *Antiquaries Journal*, XIV, 404; more recent plans, S. Giminez Reina, 'Memoria arqueologica de la Provincia Malaga' (Comisario gen. de Excavaciones, *Informes y Memorias*, no. 12, Madrid, 1946), 31–43.

7 In *Scotland before the Scots* (London, 1946), p. 98, I show how flimsy are the arguments, architectural as well as associational, that I had previously advanced for contrasting passage-graves with long cists in Scotland.

8 'The Dual Nature of the Megalithic Colonization of Prehistoric Europe', *Proc. of the Prehistoric Society*, VII (1941), 1–49.

9 Childe, *Dawn of European Civilization* (London, 1947), pp. 302–5.

upright slabs supporting equally bulky lintels or capstones. But on the clay lands round the Tagus estuary, tombs of precisely the same plan have been excavated in the subsoil and furnished with just the same set of relics.[1] Finally in Algarve and Almeria the same plan was reproduced in tombs, built again above ground, but of small stones laid horizontally to support a corbelled roof. Yet these tombs too contain the same sort of furniture as their rock-cut and genuinely megalithic counterparts. The same continuity of plan and furniture over disparate structural devices could be illustrated from prehistoric Sardinia or the north of Scotland and even more strikingly in early historical times by Etruscan funerary architecture. In southern Etruria, the chamber, though at first roofed with lintel-slabs, was cut in the soft *tufa*, as was the entrance passage; in the north where the subsoil is unsuited to such treatment, the chamber was built above-ground of blocks.[2] Yet in both areas the plans are the same and the tomb was covered by a tumulus. The structural technique seems to depend on geological factors while the same plan is faithfully preserved. It can plausibly be argued that the megalithic tomb is, in regions of shallow soil and refractory rocks, the easiest reproduction of the rock-cut sepulchre of the same form. In any case if plan be reckoned as significative of a megalithic complex, rock-cut tombs like those of the Marne or the Tagus estuary cannot be excluded.

But once we admit into our survey rock-cut and corbelled tombs, we can no longer confine our survey to western Europe, but must look further east. Already in south-eastern Sicily we meet rock-cut tombs which, in the planning of the chambers, the presence of curved façades and the form of the portal reproduce some of the most striking features of West European tombs, built of really big stones. But these are equally reminiscent of the rock-cut tombs of the Cyclades, Cyprus, Syria and Palestine, and share with them common elements in furniture and funerary ritual. Again at Hagios Kosmas in Attica[3] we have in the same cemetery both cists of slabs and corbelled tombs, both alike built in excavations provided with ritual entrances and used as collective ossuaries. Yet they were not termed megalithic and would be excluded if the size of the stones were the sole criterion. But with them must stand or fall contemporary rock-cut tombs in Euboea and Cyprus. And having got so far we could not logically exclude a number of rock-cut tombs in Asia Minor and even Iran that have I think never been considered in connection with the megalithic problem.

But there we do meet monuments that have been thus included, the so-called 'dolmens' of Palestine, Syria and the Caucasus. Now these are not comparable to the Danish dolmens, but rather to what in northern and western Europe are termed cists. Now not all cists are megalithic. Most cists in fact are little stone coffins, manifestly designed to contain only a single contracted skeleton. Such are the short cists typical of the Bronze Age in Highland Britain and Eire, the Chamblandes tombs of Switzerland and Upper Italy or, further east, the graves of the 'Minyans' in Middle Helladic Greece.[4] But the component stones, particularly the capstone of such cists at least in the British Isles, are often large and heavy. Stripped of the tumulus that normally covered them such look quite like small 'dolmens'; the *kistvaens* of Dartmoor offer a good example. Such cists have in fact been regarded as reduced versions of megalithic tombs, but in reality they are just as likely to be stone translations of wooden coffins or grave-linings. A plank coffin containing a doubled up Amerind skeleton in the Haye Museum in New York struck me as exactly like our

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[1] Vergilio Correia, 'El Neolitico de Pavia' (Comision de Investigaciones paleont. y prehist., *Memoria* 27, Madrid, 1921).

[2] Åkerström, 'Studien über die etruskischen Gräber', *Skrifter Svensk Institut i Rom* (Lund, 1934).

[3] *American Journ. of Archaeology*, XXXVIII (1934), 268–70.

[4] Childe, *Dawn*, pp. 70, 238, 288.

Scottish short cists. And plank linings to separate graves [1] are known in Jutland, Finland, Central Russia and elsewhere.

Such short cists or stone coffins are always and properly excluded from the class of megalithic tombs. One reason is that they are always separate graves while the typical megalithic tombs seem to be normally collective sepulchres, or to have started as such. One architectural clue to the use of a tomb as a collective sepulchre would seem to be the presence of a portal or entry to the chamber. This is present even in Danish dolmens though the chambers seldom measure internally more than 2 by ·75 m. and never contain more than six skeletons.[2] Admittedly this entrance was not always functional. In the Cyclades,[3] at Hagios Kosmas in Attica and Krazi in Crete, the corpses had been introduced through the roof into collective tombs provided with portals. On the other hand tombs thus provided might contain only a single burial; the Early Cycladic corbelled tombs of Syros normally held but one interment, while contemporary tombs of just the same plan in Attica were crammed with skeletons. Another guide to the distinction between a collective or megalithic cist and a non-megalithic cist or separate grave is afforded by the position in the tumulus; a megalithic tomb, unless provided with an entrance passage, must be situated near the margin of the tumulus, whereas a short cist normally lies at the centre of the barrow heaped to cover it.

Now on either criterion quite a number of alleged dolmens in Hither Asia and North Africa might be really just short cists, stripped of the barrows that once buried them. In a necropolis explored by Stekelis,[4] out of 168 cists all were closed, only two reached an internal length of 1·5 m. and all were evidently designed to receive a single interment. Yet the excavator suggests that here dolmen and cist differed only in size. The Numidian dolmens, described by Frobenius,[5] average 1·75 m. by 1·20 m. by 1·0 m. and all seem to have lain at the centres of tumuli, now marked by rings of stones, so that all were separate graves. For the same reason the *bassina* graves and their Libyan and Nubian analogues cannot strictly be brought into the class of megalithic tombs as hitherto defined.

Nevertheless there is one feature that can be used to bring some of the monuments of these regions within our class. Some have portals, and not only so, but portals carved in a single stone slab in the form called a port-hole stone in western and northern Europe. In the latter areas the entries to many megalithic and collective tombs are closed by a monolith in which a round or subrectangular aperture has been carved; sometimes the aperture is carved in the lower edge of the slab only, forming what Daniel [6] called a dog-kennel entry; at other times it is formed by semicircular slices cut out of the proximate edges of two juxtaposed slabs so that, juxtaposed, they compose a single oval hole. Two-thirds of the corbelled tombs at Los Millares in Almeria were entered through port-holes.[7] These occur more sporadically in contemporary orthostatic tombs in Granada and Andalusia, rarely in Portugal, than in the British Isles [8] (the Cotswolds, Cheshire, Man, Donegal, Sligo, Cavan and Leitrim). In the Spanish Peninsula port-holes are found alike

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[1] Ibid., p. 147.

[2] Nordmann, 'The Megalithic Culture of Northern Europe (*SMYA.*, XXXIX, 3, Helsinki, 1935), 26; *Aanbøger*, 1941, 60.

[3] *Ephemeris Archaiologike* (Athens, 1899), p. 83.

[4] 'Les Monuments megalithiques de Palestine', *Institut de Paléontologie humaine, Memoire 15* (Paris, 1935).

[5] *Praehistorische Zeitschrift*, VIII (Berlin, 1916), 33.

[6] 'The Rodmarton and Avening Portals', *Proc. Preh. Soc.*, VI, 1940, 156.

[7] Leisner in *Marburger Studien*, I, 1935, 148ff.

[8] Childe, *Prehistoric Communities of the British Isles* (Edinburgh, 1947), 51, Daniel, *Proc. Preh. Soc.*, VI, 153–155.

in corbelled tombs, orthostatic passage graves and cists; in the British Isles in tombs of the Cotswold-Severn, Clyde-Carlingford, Boyne and other types. But in France and southern Sweden port-holes seem confined to cists of the Paris type already discussed, and a few cists with port-holes in Central Germany are somewhat reminiscent in plan, but no longer in furniture, of the same type. Eastward we have dog-kennel port-holes carved in the portal stelae of Sardinian Giants' Graves, a port-hole in the side of a long cist in Apulia [1] and blocking the entrance to a typical Siculan I rock-cut tomb at Monte Salia, Sicily.[2] Incidentally the device was used in the megalithic temples of Malta.

Just because the port-hole is not confined to any one narrow class of megalithic tomb,[3] it seems to me a highly specialized trait suitable for defining a generalized 'megalithic' culture if any such exist. Now this distinctive device does turn up at least once in North Africa in the entrance to the corbelled rectangular tombs at Hamman el Sukra, Numidia.[4] Then there are examples in Palestine in the Jordan valley [5] and beyond it in Golan and Belka [6] and still further north even in Syria.[7] The little known megalithic tombs of eastern Bulgaria [8] use it and so of course do the more famous monuments of the Caucasian slopes.[9] In the two most celebrated monuments at Novosvodobnaya on the Belaya in the Kuban basin, the port-hole slabs do not close an entrance—there is none—but divide the chamber into two compartments, and the tombs themselves were not collective sepulchres but royal tombs in which the owner was buried with wife or slave. But generally in the Caucasus the port-hole appears in the outside wall of a modest cist-like tomb, normally only some 2·5 m. long. And then in Transcaucasia, in Abkhazia and right across the peninsula to the Araxes valley on the Persian frontier, there are stone slab tombs containing many skeletons and occasionally provided with port-hole slabs, as at Djönü.[10]

We cannot now stop there. Right across the ranges at Sialk [11] on the edge of the desert basin of Iran, two tombs in necropolis B comprise undeniable port-hole slabs. But the tombs of Sialk B can hardly be called megalithic; none measures more than 2 by 1·25 m., the side-slabs do not support a capstone but lean together, and the port-hole itself has dwindled to a symbolic aperture, in one case only 10 cm. in diameter. Nor are the Sialk B graves collective; each contains a single individual, sometimes accompanied by one or two wives. Yet Sialk B might be used to link with the west, with the Caucasus or Palestine, the celebrated Indian dolmens; for these too may at least be entered through port-hole slabs. But they are concentrated in the south of the Peninsula in areas not likely to be affected by land-borne impulses from Iran, but exposed rather to maritime influences. If their distribution do suggest inspiration from the West, that must surely have come by sea. Yet the ring of megalithic orthostats that often encircles Indian dolmens does recur in north-western Iran or in Transcaucasia. On the other hand, circles of great stones surround the dolmens of Palestine and North Africa and many of the megalithic tombs of

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[1] Gervasio, *I Dolmen* (Bari, 1913), 68.

[2] *Bollettino di Paletnologia Italiana* (Parma, XLIII), 17

[3] For this reason on the contrary, Daniel (*Proc. of the Prehistoric Society*, VI, 1940, 156) argues for several independent inventions of port-holes.

[4] *Praehist. Zeitschrift*, VIII, 53, Abb 25.

[5] *Reallexikon der Vorgeschichte*, VIII, 112; *Antiquity*, VII (1933), 472.

[6] *Reallexikon*, VIII, 108.

[7] Déchelette, *Manuel d'archéologie préhistorique*, i.

[8] *Antiquity*, XII, 1938, 486.

[9] *Eurasia Septentrionalis Antiqua* (Helsinki), IX, 5ff.

[10] J. de Morgan, *Mission en Perse*, p. 48, fig. 48.

[11] Ghirshman, *Fouilles de Sialk*, II (Paris, 1939), 27.

western and northern Europe. There, as also in North Africa and probably in Palestine, the stone circle served as a support to sustain the cairn of stones or earthen tumulus that certainly once covered all occidental dolmens. Still between the easternmost of the latter and the Indian Peninsula there remains a vast space, not wholely covered with water but unspotted on any dolmen map available.

There seems also a chronological gap. The excavated dolmens of the Indian Peninsula have yielded implements of iron or at least wheel-made vases appropriate to the Iron Age. Most dolmens in north-western Europe are assigned to the Stone Age; not even those of Cis-Caucasia nor Palestine contain wheel-made pottery. Indeed in northern and western Europe there exist fairly adequate grounds for believing that some at least of all major types of local megalithic tomb were erected about or even a bit before 2000 B.C. The same is true of the rock-cut tombs (but not the Giants' Graves) of Sardinia and those of Sicily. The Early Cycladic, Early Minoan and Early Cypriote tombs I have so far mentioned undoubtedly belong to the third millennium B.C. and so do such Syrian rock-cut tombs as those in the 'Copper Age' cemetery of Byblos.[1] Even in the Caucasus, Novosvodobnaya[2] can hardly be put after 1500 B.C. and may well be nearer 2000. Within these chronological limits it might be legitimate to add a very significant phrase to the desired definition of a megalithic culture. All the tombs in question with a few exceptions seem to have been used as collective sepulchres, all at any rate contain a number of corpses which, whenever evidence be available, had not all been interred simultaneously, but successively over a longer or shorter period. (India provides exceptions to the latter part of this rule.) In some cases where the tombs are isolated or constitute groups of only three or four and contain 50 or more bodies, their use might have been permitted to a group larger than the natural family, to a clan. Where the tombs cluster in cemeteries as in Attica, Sicily, or Almeria they may have been just family vaults such as are so common in historical times down to the present day.

Now if we were prepared to accept collective burial as a distinctive trait of the—or an—*original* 'dolmen complex', we should be able to exclude from its *origins* the Egyptian mastabas and the rock-cut tombs beneath them.[3] Admittedly the plans of individual Egyptian tombs both under the Old Kingdom and later do agree in a startling way with those of individual 'megalithic' tombs both in Western Europe and in Mycenaean Greece.[4] Admittedly, too, huge stone slabs, but beautifully dressed, were used in building the funerary chambers of some Early Dynastic tombs and for the mastabas and pyramids that surmounted the burial vaults in the Old Kingdom. But every Egyptian tomb was excavated or erected to be the mortuary residence of an individual pharaoh or noble; not even members of his family were buried therein, but separate tombs constructed for their repose.

Moreover if we accepted the *mastaba* plus rock-cut tomb as the archetype of the 'dolmen', we should surely have to include in the dolmen family the wooden mortuary houses under the barrows of chieftains of the pastoral tribes of Eurasia, from the little

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[1] Dunand, *Fouilles de Byblos* (Paris, 1939), pp. 430ff.

[2] The two 'dolmens' here are usually assigned to the Early Kuban phase, i.e to the beginning of the Copper Age, but Degen-Kovalevskii argued in 1939 that they should be transferred to the end of that 'Age' and he may be right, cf. Childe, *Dawn*, pp. 149–158.

[3] As argued by Elliot Smith in a series of works beginning with 'The Evolution of the Dolmen and Rock-cut Tomb' in *Essays and Studies presented to Sir William Ridgeway* (Cambridge, 1913).

[4] As shown by Persson, 'New Tombs at Dendra', *Skrifter k. humanistiska Vetenskapssamfundet i Lund*, XXXIV, 1942, 169.

round or square huts of the Stone Age [1] to the spacious wooden halls built by the Scythians and later peoples. So treated the dolmen family would have outgrown the specific limits imposed upon any classification that is to be scientifically useful.[2] If Egyptian royal tombs are to be included at all, they must be admitted as collaterals or descendants of the original dolmen. On the other hand, we have already included among its lineal descendants rock-cut family vaults of the second millennium B.C. and later. Now in Greece during the fifteenth and subsequent centuries B.C. only the commoners of the Mycenaean civilization were buried in such tombs; their kings were interred each in a stately tholos wherein might repose also his wife and perhaps unmarried children, but certainly no remoter descendants. So too at Antequera in the Guadelquiver basin three enormous tombs—Romeral, Menga and Viera—built each in a different technique and plan, of superb masonry, look like Royal Tombs contrasted with the simpler rock-cut tombs of the adjacent cemetery.[3] Even further north the great tholoi on the Boyne in Eire and Maes Howe in Orkney look suspiciously like Royal Tombs. Yet it would be absurd to exclude New Grange in Eire, Romeral in Spain and Atreus at Mycenae from the class of megalithic tombs even though they be not also collective. Presumably these imposing structures are the versions produced by societies given to the practice of collective burial, when divine kings have arisen in and from them. The same hypothesis must be invoked when we include a whole series of Etruscan, Thracian and Scythian tombs of the first millennium; these are so like the earlier Mycenaean or Hispanic tholoi that it would be illogical to exclude the one and not the other. The same remarks apply to the celebrated rock-cut tombs of eastern Anatolia and Iran [4] down to that of Darius himself at Naqsh-i-Rustam.

On the foregoing assumption of a connection between dolmen and rock-cut tomb it would seem likely that the complex originated around the eastern Mediterranean, presuming it had a single origin at all. For there the habit of excavating family sepulchres in the rock was undoubtedly very ancient and was maintained most consistently for millennia. In Europe the diffusion of the complex must have been effected by sea-ways, whether the human agents in the process were conquerors, merchant colonists, missionaries or searchers after Isles of the Blest or perchance hapless mariners whose small craft had been blown by the winds' caprice far beyond their intended goal. In any case the early centres of megalithic architecture in Europe all lie near the coasts of the Mediterranean, the Atlantic and the North Sea. Even the dolmens of the Crimea and Cis-Caucasia and the correlative rock-cut tombs or 'Catacombs' of the Pontic steppes are reasonably near the Euxine. And by sea the dolmen and the port-hole slab should have reached the Indian Peninsula too. But the starting point of the navigators is unknown; the distribution of the known Asiatic dolmens is by no means coastal. In Palestine most are concentrated along and east of the Jordan valley. Seaways can have had no part in diffusing dolmens in Iran.

I have no space, nor much desire, to do more than mention the second class of megalithic monuments to which I referred at the start—cromlechs or stone circles. Some—in Britain, Tunis, Palestine, Iran and India—are just the kerbs supporting tumuli that once covered the graves they still surround. The tombs thus surrounded were not always megalithic or

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[1] In South Russia, Germany, Switzerland, Holland and England, see Rykov, 'Pogrebennic v shalashakh' *Izvestia GAIMK*, Moskva, 1934, 100; *Offa*, Kiel, I, 1936, 77–82; Van Giffen, 'Die Baurat der Einzelgraber' *Mannus Bibliothek*, 44 (Leipzig, 1930), *Proc. Preh. Soc.*, IX, 1943, 24-5.

[2] Yet the dolmens of Novosvodobnaya do look very like pertrified versions of the wooden chambers under other Early Kuban barrows.

[3] S. Gimenez Reina, op. cit., 49–52; this cemetery is some 15 km. from Romeral, but some of its tombs reproduce exactly the latter's plan.

[4] Described best in Herzfeld, *Iran in the Ancient East.*

collective. In northern Europe they were normally separate graves. Van Giffen's work in Holland has shown that the stones may replace or be replaced by wooden posts. Indeed in the case of sepulchral circles I suggest that neither the *lithoi* nor their *megathos* are the decisive element; the circle is the crucial thing, its materials being dictated by geology, its magnitude by the importance of the dead encircled or by the intensity of the survivors' fear of ghosts.

But no Briton could deny the existence of non-sepulchral circles, knowing of Avebury, Stonehenge and Boodgar. All I need do is to remind you that there were megaxylic as well as megalithic circles. The trilithon circle at Stonehenge is obviously a translation of a wooden one. Such translation might occur at any time and almost anywhere. India is a classic land for the translation of wood into stone. Piggott [1] has recently reminded us of the striking instance at Sānchi, both circular and funerary, but not megalithic. The quest for any one megalithic circle-culture is much less promising than that for a megalithic tomb-complex.

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[1] 'The Earliest Buddhist Shrines', *Antiquity*, XVII, 1943, 1–6.

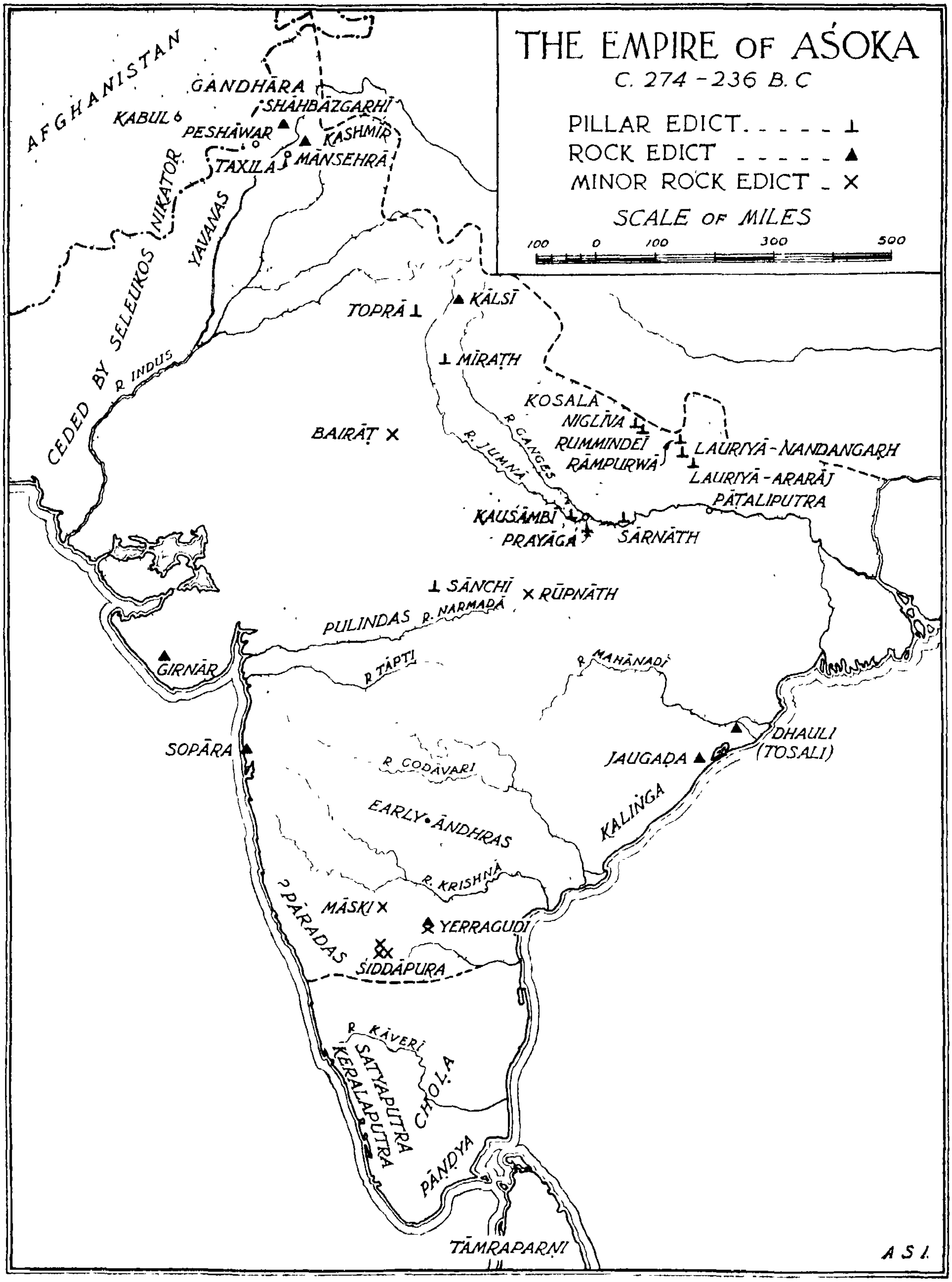

THE EMPIRE OF ASOKA
C. 274 - 236 B.C
PILLAR EDICT
ROCK EDICT
MINOR ROCK EDICT
SCALE OF MILES
100 0 100 300 500
AFGHANISTAN
GANDHĀRA
KABUL
PESHĀWAR
SHĀHBĀZGARHĪ
KASHMIR
TAXILA
MĀNSEHRĀ
CEDED BY SELEUKOS NIKATOR
YAVANAS
R. INDUS
TOPRĀ
KĀLSĪ
MĪRATH
KOSALA
NIGLĪVA
RUMMINDEĪ
RĀMPURWĀ
LAURIYĀ-NANDANGARH
LAURIYĀ-ARARĀJ
PĀTALIPUTRA
BAIRĀT
R. JUMNA
R. GANGES
KAUSĀMBĪ
PRAYĀGA
SĀRNĀTH
SĀNCHĪ
RŪPNĀTH
PULINDAS
R. NARMADĀ
GIRNĀR
R. TĀPTĪ
R. MAHĀNADĪ
DHAULI (TOSALI)
JAUGADA
SOPĀRA
R. GODĀVARĪ
EARLY ĀNDHRAS
KALINGA
R. KRISHNĀ
MĀSKI
YERRAGUDI
? PĀRADAS
SIDDĀPURA
R. KĀVERĪ
SATYAPUTRA
KERALAPUTRA
CHOLA
PĀNDYA
TĀMRAPARNI
A S I.

FIG. 1

THE MINOR ROCK-EDICTS OF AŚOKA AND SOME CONNECTED PROBLEMS

By N. P. CHAKRAVARTI

The recent excavations in the Chitaldrug District of Mysore State, described elsewhere in this issue (pp. 181ff.), invite a fresh attention to a number of important historical questions relating to the Mauryan and Āndhra régimes in this part of the Deccan. A re-assessment of the epigraphical and historical data is an appropriate counterpart to the new evidence provided by the excavator, and in the following paper this task has been initiated by the Joint Director General of Archaeology, who was formerly the Government Epigraphist for India.

ALTOGETHER eight versions of the Minor Rock-edicts of Aśoka are at present known. They are found at (1) Rūpnāth (Central Provinces), (2) Sahasrām (Shāhābād District, Bihar), (3) Bairāṭ (Jaipur State), (4) Māski (Raichūr District, Nizam's Dominions), (5–7) Brahmagiri, Siddāpur and Jaṭiṅga-Rāmeśvara, all three in the Chitaldrug District of the Mysore State and situated close to one another near the site of an ancient town, and (8) Yerraguḍi (Kurnool District, Madras Presidency).[1] This list excludes the well-known Calcutta-Bairāṭ edict, now preserved in the Indian Museum, Calcutta, and commonly known as the Bhābrū edict, as its contents are quite different from the other eight edicts. Of these eight edicts, the first four contain a single edict and, though their texts differ slightly from one another, the sum total of their contents is practically the same. While the text of the Māski edict is the shortest and the portion containing the much-discussed figure of 256 is not found in it, it is the only edict so far known which mentions Aśoka by name. The three Mysore edicts and the Yerraguḍi edict, however, contain a second edict of which the last-mentioned supplies an enlarged version. Furthermore, while all the other five versions record an order directly from the king, probably issued from the headquarters at Pāṭaliputra, the three Mysore edicts were communicated to the Mahāmātras at Isila through the prince (*ayaputa*) and the Mahāmātras at Suvarṇagiri. Isila must be identified with the site of the ancient town at the foot of Brahmagiri near Siddāpur (see pp. 184ff.) and, whatever may be the location of Suvarṇagiri, it is clear that the remotest portion of Aśoka's empire in the South was ruled from this place, probably the headquarters of the southernmost province, by a governor who was a prince of the royal blood.

That there were other provinces within the empire of Aśoka in charge of royal princes with headquarters at Tosali, Ujjayinī and Taxila is known from the separate edicts at Dhauli and Jaugaḍā. We also know from the Junāgaḍh inscription of Rudradāman that the province of Surāshṭra was under the governorship of the Yavana Tushāspha in the time of Aśoka. The provinces which were placed under the administration of a royal prince must have been of some special political importance.

Tosali was the capital of the newly conquered province of Kaliṅga, and it is understandable that a royal prince should be in charge in order to create confidence among the peoples who had suffered much from the war. Taxila was a capital of the Gandhāra country and held a key-position in the empire, as did Ujjayinī. But why was Suvarṇagiri,

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[1] For nos. 1 to 7 cf. Hultzsch, *The Inscriptions of Aśoka, Corpus Inscriptionum Indicarum* (Oxford, 1925) I, 166ff.; and for no 8, *An. Rep. A S.I.*, 1928-29 (Delhi, 1933), pp. 166f.

which must have been located far in the South and far away from the official headquarters at Pāṭaliputra, considered important enough to be placed under a governor of the royal blood? This raises the fundamental question of the Mauryan expansion in South India. Was it Aśoka who conquered the southern parts of his empire as he conquered Kaliṅga, or were these possessions acquired by one of his predecessors? Inscriptional evidence is unfortunately very meagre in this respect. The information supplied by his edicts implies that the only conquest Aśoka ever made was that of Kaliṅga. The horrors of war, which he must have witnessed with his own eyes, put a stop to his lust for expansion, and thereafter the only conquest of which he could think was the conquest by 'morality'. Was then Chandragupta, his grandfather and founder of the Maurya dynasty, responsible for this conquest?

Several Jaina works mention king Chandragupta as a disciple of Bhadrabāhu the last of the *śrutakevalins*, and tradition has it that, when Bhadrabāhu died on the Koṭavapra hill (modern Chandragiri) at Śravaṇa-Belgoḷa in Mysore State, his chief disciple Chandragupta was his only attendant.[1] This tradition is present in several inscriptions, the earliest of which is no older than the seventh century A.D. and the latest is of the fifteenth century.[2] But these inscriptions speak only of Chandragupta's association with the Jaina teacher; nowhere do they mention his rule in the South. The only epigraph which makes a definite statement is a late record of the fourteenth century according to which Nāgarakhaṇḍa (modern Shikārpur Taluk, Shimoga District, Mysore) was 'ruled by the wise Chandragupta', though it does not mention the dynasty to which he belonged.[3] There is another inscription of A.D. 1204 from the Shikārpur Taluk which states that the Kuntala country, which included the northern parts of Mysore, was ruled by the 'nine Nandas, the Mauryas and the Gupta family'.[4] The only safe conclusion that can be drawn from the evidence supplied by these late inscriptions is that it was believed in the thirteenth-fourteenth century that the Maurya rule had extended as far south as northern Mysore.

The early Tamil literature, however, throws some further light on the expansion of the Maurya kingdom in the South.[5] The late Diwan Bahadur S. Krishnaswami Aiyangar discussed in detail these sources and came to the following conclusions:—

'1. That the Mauryas carried their invasion to the farthest south of India;
2. That they were in hostile occupation of forts in the northern borders of the Tamil land extending from Pulikat in the east almost to Goa in the west; and
3. That these Aryans were beaten back when the Mauryas and their successors at headquarters became too feeble or too much occupied to be able to retain their hold on the distant south.'[6]

These references to the Maurya invasion of the South made by different early Tamil authors certainly have some historical basis. But none of them clearly mentions the ruler by whom this invasion was undertaken. That Aśoka was in no way responsible for it is

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[1] B. Lewis Rice, *Mysore and Coorg from Inscriptions* (London, 1909), p. 4.

[2] Ibid., pp. 3-4.

[3] B. L. Rice, *Epigraphia Carnatica*, VIII (1904), p. 86, no. 263.

[4] Rice, ibid., VII (1902), 132, no. 225. The original inscription has *nava-Nanda-Gupta-Kula-Maurya-kshmāpar* which Rice translates as 'the nine Nandas, the Gupta-Kula Maurya kings'. But I would prefer to take the Guptas and the Mauryas separately. These two dynasties were so well known even in the early thirteenth century, to which period the inscription belongs, that I doubt if the author of the inscription would mix up the Mauryas and the Guptas.

[5] S. K. Aiyangar, *Beginnings of South Indian History* (Madras, 1918), pp. 81ff.

[6] Ibid., pp. 99-100.

certain. We have mentioned above that the invasion of Kaliṅga is the only one referred to in the edicts. Moreover, in his thirteenth Rock-edict Aśoka names as his borderers in the South, the Choḍas and the Pāṇḍyas, as far as Tāmraparṇī or Ceylon. The second Rock-edict gives the same names with the addition of two others, viz. Satiyaputra and Keralaputra, between the Pāṇḍyas and Tāmraparṇi. All these, with the exception of Satiyaputra, have been definitely identified, and on the evidence of these edicts we can safely conclude that they were all outside Aśoka's dominions. He speaks of these friendly borderers in such terms as to preclude the possibility of aggression on his part against them.

The Mauryan invasion of the South must therefore have taken place during the reign either of Chandragupta or of his son Bindusāra. With the overthrow of the Nandas, the whole country under their suzerainty must have passed to Chandragupta. But neither inscriptions nor literature mention that either the Nandas or Chandragupta ever held sway over the Tamil land. We know from the foreign classical writers that Taxila, Ujjain and Kauśāmbī were included in the empire of Chandragupta, but they also are silent about the extent of his empire in the South. Chandragupta had indeed a long rule of 24 years to his credit, but his earlier years were occupied in war with the generals of Alexander in the North. He must have taken a good few years in the consolidation of the vast empire which came into his possession with the defeat of the Nandas, an empire to which he made no inconsiderable further addition by wresting the provinces in the north-west, including perhaps a portion of Baluchistan and Afghanistan, from the Greeks. He must have had to devote a considerable time to the consolidation of this conquered territory, and even after the actual cessation of hostilities he must have had to keep constant vigilance over his warlike neighbours in the North till such time as complete peace was achieved. In fact, even if we may believe a half of what the *Arthaśāstra* and the classical authors have to say about the splendour of Chandragupta's court and about his achievement in administration, many years of peaceful reign are implied; and in the circumstances it is hard to suppose that he would have had enough time left on his hands to undertake fresh conquests in the South.

If then neither Chandragupta nor Aśoka was responsible for the invasion of the Tamil land, the only Maurya ruler left to us is Bindusāra. There is, indeed, no definite indication of this conquest by Bindusāra either in literature or in inscriptions of an early period. Tāranātha, the Tibetan historian, says, however, that the Brahmin Chāṇakya, Bindusāra's minister, destroyed kings and ministers of about sixteen towns, and made the king undertake a war which brought all the territory between the eastern and western seas under his control.[1] Tāranātha does not disclose the source of his information, but that Chāṇakya remained in Bindusāra's service after the death or abdication of Chandragupta is corroborated by Hemachandra and the *Ārya-mañjuśrī-mūlakalpa*. The opinion of scholars is, however, divided on the interpretation of this passage of Tāranātha. Some see in it a reference to the annexation of the South, while others are of opinion that, since in Chandragupta's time itself the Maurya empire extended from Surāshṭra to Gangaridae (Bengal), a territory lying between the eastern and western seas, the statement of Tāranātha 'need mean nothing more than the suppression of a general revolt'.[2] I am, however, inclined to agree with Jayaswal that at least some of the sixteen States mentioned by Tāranātha must refer to those in the South. In the North we know only of one revolt in Bindusāra's time, and that was in Taxila, where Aśoka as a prince was sent to quell it. No mention is made of any other revolution in the North. Even if there were, it would be unreasonable to suppose

[1] *Journal of the Bihar and Orissa Research Society*, II (1916), 80 and note.

[2] H. C. Ray Chaudhuri, *Political History of Ancient India* (4th edition, Calcutta, 1938), p. 244.

that all the sixteen States lay in the north. The very name of Amitrachates (Skt. *amitra-ghāta,* slayer of enemies) by which Bindusāra was known to the Greeks, shows that he was a warlike king.[1]

If this theory of Bindusāra's conquest of the Tamil land is correct, we may have to admit that in Aśoka's time the Maurya Empire had already become somewhat reduced in size. The Choḷas and the Pāṇḍyas must have, in that case, asserted their power soon after the invasion and regained their lost territory. Nevertheless, in spite of what had happened in his father's time Aśoka must, as his edicts show, have managed to establish with these powerful border territories good and friendly relations which he kept up throughout his reign.

Now to return to the question of the Minor Rock-edicts. We find that as many as five versions out of a total of eight are in the South. But what is their chronological position in the series of Aśoka's edicts? Scholars are now generally of opinion that they can be regarded as the earliest edicts issued by Aśoka. None of them contains any information as to when they were issued but there are evidences, both internal and external, from which we can come to a broad conclusion as to the approximate time of their issue. In all the Minor Rock-inscriptions Aśoka informs us that a little more than two and half years had passed since he became a lay disciple (*upāsaka, śākya* in the Rūpnāth version); that he had not been very zealous at the beginning, but that a year and somewhat more had passed since he visited the Saṁgha and he had been very zealous since then. The sixth Pillar-edict informs us that Aśoka issued his rescripts on morality in the twelfth year after his coronation. This must refer to the Minor Rock-edicts as they 'contain the first elements of Aśoka's *Dharma*, which we find more fully developed in his rock and pillar edicts'.[2] In the opinion of Hultzsch, the Rūpnāth and Sahasrām edicts must be considered earlier than others as 'they speak of inscriptions on rocks and pillars as a task which it was intended to carry out, and not as a *fait accompli*'.[3] The Bairāṭ version is far too damaged to give us any definite idea as to where it ended. Only a few letters of line 8 are visible on the rock but, as the missing portion could be fitted comfortably into this line with the few concluding words running into the next line, it would not be unreasonable to suppose that the text in the Bairāṭ version was practically the same as in the other two Northern versions. In that case we may conclude that, of the Minor Rock-edicts, these three versions are the earliest, whilst the four Southern versions, excluding that at Māski, which contain a second inscription giving a more detailed exposition of the *Dharma*, are the latest. The place of the Māski version in this chronology cannot be definitely determined. But as this version contained only a single edict it was perhaps the earliest of the Southern versions. Of the rest, the three Mysore edicts are certainly contemporary as they were all written by the same scribe, and the Yerraguḍi version the latest, as it contains an enlarged version of the second edict. Aśoka appears to have started with the Northern versions which were meant for places nearer his capital and gradually proceeded southwards. Besides the

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[1] R. K. Mookerji, *Chandragupta Maurya and his Times* (London, 1928), p. 62, asserts that Chandragupta himself was responsible for the conquests of the South. His theory is based on a passage of Plutarch in which it is stated that Chandragupta 'overran and subdued the whole of India with an army of 600,000'. Though Plutarch drew his sources from the contemporary historians of Alexander we know that he wrote a 'life' of Alexander and not a history of the conquests of the Greek king. Plutarch's account is for that reason full of historical inaccuracies and according to his own admission he did not in his work 'give the actions in full detail and with a scrupulous exactness'. McCrindle has pointed out this indifference of Plutarch to historical accuracy and has cautioned that Plutarch's accounts be used with care, since they are not intended as material for history. J. W. McCrindle, *The Invasion of India by Alexander the Great* (Westminster, 1896), p. 12.

[2] Hultzsch, op. cit., p. 44. [3] Ibid.

internal evidence adduced above there is also external evidence to show that the Minor Rock-edicts were issued earlier than the fourteen Rock-edicts. Yerraguḍi is the only site so far known where the Minor Rock-edicts and the fourteen main Rock-edicts are found side by side. I made a careful examination of the site on several occasions and came to the conclusion that the Minor Rock-edict at this place must have been engraved earlier than the other edicts. The rock on which this edict is incised is the lowest and occupies the most prominent position. Unlike the other inscribed rocks, there was no attempt to dress this boulder for the purpose of writing. Moreover, while there is a homogeneity in the writing of all the fourteen Rock-edicts, the writing of the Minor edict is different and was certainly incised by a different scribe. That he was not a skilled artisan, and might even have been illiterate, is apparent from the way in which he has done his job. The writing is very indifferent, and the lines are not straight. Evidently the scribe had before him a draft which he copied mechanically and, if a particular line in the draft did not fit into the space available on the stone, he continued it from the right towards the left till that line was finished.[1] Furthermore, the language of the Minor Rock-edict is in *r* dialect as found in the Girnār version and the three Mysore edicts, while the language of the fourteen Rock-edicts is in *l* dialect like the Kālsī version of the principal Rock-edicts and the Rūpnāth and Sahasrām versions of the Minor edict.

The next point to examine is whether the inscriptions of Aśoka throw any light on the tribes inhabiting the southernmost parts of his territories. In his edicts Aśoka mentions two classes of tribes, viz. (1) those living outside his territories (*antā*, borderers), and (2) those living within his empire. According to Rock-edict V, the borderers in the west (*āparāntā*) were the Yonas, the Kambojas, the Gandhāras, the Raṭhikas and the Pitinikas (or Raṭhika-Pitinikas). We have already noticed above who his southern borderers were. According to the Rock-edict XIII, the tribes which were distinguished from the above as living in the king's territory (*iha-rājavisaye*) were: the Yonas and the Kambojas, the Nābhakas and the Nābhapaṅktis, the Bhojas and the Pitinikas, the Āndhras and the Pārindas. It is clear from the statements made in the Rock-edicts V and XIII that there were Yonas, Kambojas, Bhojas and Pitinikas both inside and outside Aśoka's dominion. We shall not discuss here the exact location of their territories but it seems clear that we have to look for them in the north-west and west. The only two tribes who have to be located in the South are the Andhras and the Pārindas, and we shall make an attempt here to locate their territories at the time of Aśoka.

The earliest mention of the Āndhras as a people is found in the *Aitareya Brāhmaṇa.*[2] According to it Viśvāmitra had 100 sons. Some of them, viz. the Āndhras, Puṇḍras, Śavaras, Pulindas and Mūtivas, disobeyed their father and were cursed by him as outcastes (*dasyus*). The *Aitareya Brāhmaṇa* was compiled prior to 500 B.C. and, though the chapter

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[1] I do not agree with Daya Ram Sahni that the Yerraguḍi version of the Minor Rock-edict is written in the boustrophedon style (*An. Rep. A.S.I.*, 1928-29, p. 165). In this style of writing the direction of line is alternated like the course of a plough, the first line usually beginning on the right and second on the left immediately below the end of the first and so on, and the lines are normally of approximately equal length where the nature of the surface of the material on which the record is incised permits. Had the writing on the Yerraguḍi inscription been in this style, the letters when written from right to left would have been reversed, which is not the case. Furthermore, the boustrophedon style of writing was abandoned in Greece about the sixth century B.C. and it is doubtful if the system would have continued in India nearly three centuries later.

[2] Chapter 33, VI, *Pañchikā* vii, 18 (ed. Ānandāśrama Sanskrit Series).

in which this passage occurs is supposed to be of a later date, we cannot be far wrong in concluding that several centuries before the commencement of the Christian era the Āndhras were known as a people and were regarded as a non-Aryan tribe living on the outskirts of the Aryan settlement. A reference to the Āndhras is also given by Pliny (first century A.D.) who drew his materials from earlier sources. After Bengal and Kaliṅga (Gangarid Calingae), Pliny mentions the Modogalinga race, which must be identified with the country of Mudukaliṅga or Trikaliṅga, comprising Ganjam and Kosala. After this and before coming to the Āndhras, Pliny mentions a dozen tribes, very few of which can be definitely identified. One thing, however, seems certain, that Pliny did not describe them in any geographical order. McCrindle places most of these tribes 'in the region between the left bank of the Ganges and the Himalayas'.[1] After these tribes, whatever may be their location, are mentioned the Āndhras in the following words: 'Next come the Andarae, a more powerful tribe, with a great many villages and thirty towns fortified with walls and towers; they furnish their king with 100,000 infantry, 2,000 cavalry and 1,000 elephants'.[2] Though Pliny does not give us any definite idea as to the exact location of the Āndhra territory, there is no doubt that they were a powerful race in the South, inhabiting the country between the Godāvarī and the Kṛishṇā. The Pāli literature, however, throws further light on the territory of the early Āndhras. The *Sarivāṇija Jātaka* mentions a town called Andhapura which was situated on the Telavāha river. Bhandarkar identifies this river either with the Tel or the Telangiri, both flowing near the confines of the Provinces of Madras and the Central Provinces, and suggests that this Andhapura must have been the capital of the early Āndhra kingdom.[3] If his identification is correct, the early Āndhra territory must have comprised parts of both the Provinces of Madras and the C.P. The Pāli *Apadāna* gives a list of tribes that came to pay homage to Thera Jātukaṇṇika when he was born as a *seṭṭhi* (banker) in Haṁsavatī[4], among which is mentioned the Āndhra. According to the *Suttanipāta*, Andhakaraṭṭha was on the bank of the Godāvarī and Assaka and Mūḷaka (*var.* Aḷaka) were two Āndhra principalities. Both Assaka and Mūlaka are mentioned in the Nasik cave inscription of Gautamī Balaśrī, issued in the nineteenth year of her grandson Puḷumāyi, as being within the dominion of Gautamīputra Śātakarṇi. Varāhamihira places both these in the north-west division of India[5], but undoubtedly they were in the South. In fact the Pāli literature gives us a positive proof in the matter of their identification. Bāvari, a Brahmin ascetic of Śrāvastī went to Dakshiṇāpatha and lived in an island in the Godāvarī, half of which was in the territory of Assaka and the other half in that of Aḷaka (Mūḷaka). He sent his sixteen pupils to the Buddha at Śrāvastī in order to find out whether his claims to Buddha-hood were justified. Going to Śrāvastī these pupils went northwards through Aḷaka, Patiṭṭhāna, Māhissati, Ujjeni, Gonaddha, Vidisā, Vanasāhvya (or Tumbava), Kosambī and Sāketa. Two facts emerge from this statement, viz. that both Assaka and Muḷaka were contiguous cities and both lay on the Godāvarī to the south-east of Paiṭhan. All these indications suggest that the territory of the early Āndhras lay further to the north and that it was extended to the south, right down to northern

1 J. W. McCrindle, *Ancient India as described by Megasthenes and Arrian* (London, 1877), p. 137, note.
2 Pliny, *Natural History*, Book VI, XXII.
3 *Indian Antiquary*, XLVII (1918), p. 71.
4 *Apadāna*, II, pp. 358-59, P.T.S. edition.
5 Fleet, 'Topographical List', *Ind. Ant.*, XXII (1893), p. 174.

Mysore, only in the time of the later Sātavāhanas. There is, however, a verse in the *Mahābhārata* which seems to go against this view. The verse reads as follows:—

> *Pauṇḍrako Vāsudevaś=cha Vaṅgaḥ Kāliṅgakas=tathā*
> *Ākarshaḥ Kuntalaś=ch=aiva Vānavāsy=Āndhrakās=tathā.*
>
> (Sabhā, xxxi, 11.)

According to this verse Vāsudeva, the king of Puṇḍra, the kings of Vaṅga, Kaliṅga, Ākarsha (mistake for Ākara?) and Kuntala, and the Āndhras of Vanavāsi were among the kings and tribes attending the *Rājasūya* of Yudhishṭhira. This, however, need not militate against the above theory, as we know that, though a part of the *Mahābhārata* was compiled in the third or fourth century B.C., the work of compilation went on for several centuries, right down to the fourth century A.D. This theory, that the Āndhras moved southwards later, is borne out both by inscriptions and by coins. At Banavāsi (Kanara District) and Malavalli (Shimoga District, Mysore) we have inscriptions of the time of Hāritīputra Śātakarṇi. At Talgunda (Shikarpur Taluq, Mysore) there is an inscription of the Kadamba king Kākusthavarman which mentions that, in the Śiva temple there, Śātakarṇi and the other great kings had worshipped.[1] A king Kubiraka is mentioned in two inscriptions on the casket found at Bhaṭṭiprolu (Guntur District).[2] Bühler places these inscriptions in about 200 B.C., i.e. in the period immediately following that of Aśoka. The village of Bhaṭṭiprolu is situated near the southern bank of the Kṛishṇā but there is nothing to prove that Kubiraka was an Āndhra ruler.

Coins of the Sātavāhanas have been obtained in abundance at Chandravalli in the Chitaldrug District of Mysore. But all these coins belong either to the later Sātavāhana rulers or their feudatories. The only coins about which there is a difference of opinion among scholars with regard to date, are the large lead coins with the legend *Sadakaṇa Kaḷālaya Mahārathisa*. Though Rapson is doubtful whether this person is identical or not with the Kaḷālaya-Mahārathi of the Aṁgiya-kula, mentioned in the Nānāghāṭ inscription as the father of queen Nāganikā, wife of king Śri Śātakarṇi and mother of Vedisiri, I am inclined to treat the two as quite different persons. Rapson has himself pointed out that, since the coin apparently bears a title and not a personal name, it may well have been issued by some later members of the family.[3] This view actually gains strength by the fact of the reverse type and fabric of this coin being similar to those of the large lead coins of Chuṭukaḍānaṁda and Muḍānaṁda found at Karwar in North Kanara.[4] In the face of what is stated above, the theory that the coins of Kaḷālaya Mahārathi may belong to the period of Śrī-Sāta, the third member of the Āndhra dynasty, has to be given up and they must be relegated to a later period. As stated above, all the other coins which have been discovered in this area are also of a later period and there is no numismatic evidence to show that North Kanara or North Mysore was in the occupation of the early Āndhra rulers. It is perhaps significant that the coins of the early Sātavāhana kings are found in Malwa, Kṛishṇā and Godāvarī Districts and in parts of the Central Provinces, and none in the southern parts of the later Sātavāhana empire. Vaijayantī or Banavāsi was certainly at a

[1] Rice, *Epi. Carn.*, VII (1902), Text, p. 200, Transl., p. 113.

[2] *Ep. Ind.*, II (1894), pp. 328-29, nos. 6 and 9. For corrections see H. Lüders, *List of Brāhmī Inscriptions*, nos. 1335 and 1338.

[3] E. J. Rapson, *Coins of the Andhra Dynasty* (London, 1908), p. lxxxiii.

[4] Rapson, ibid., para. 69. Rapson reads the name as *Dhuṭukaḍānaṁdasa* and corrects as *Chuṭu-*. But to me the reading on all the coins seems to be clearly *Chuṭu*.

later time an important city in the Sātavāhana empire, as it was from the camp here that Gautamīputra Śri-Śātakarṇi issued his orders to the governor at Govardhana (Nāsik) after his victory over Nahapāna, whose known dates would cover the period A.D. 119–124 on the assumption that his inscriptions are dated in the Śaka era, and it remained so until it passed over to the Kadambas. The earliest Sātavāhana coins so far discovered during excavations by the Mysore Archaeological Department are those of Yajña Śātakarṇi. The date of both Vāsishṭhīputra Puḷumāyi and Gautamīputra Yajña Śātakarṇi is still a disputed question. But there is no doubt that they have to be placed between the second quarter and the end of the second century A.D.[1] In that case we have to admit that there is no definite indication that the Sātavāhanas penetrated into the country to the south of the Kṛishṇā before the second century A.D. It was perhaps Gautamīputra Śrī-Śātakarṇi who was responsible for the conquest of the country lying to the south of the Kṛishṇā as he was for the conquest of the dominion of Nahapāna, and it was perhaps about the same time, if not somewhat later, that the feudatory family of the Mahārathis began their rule in North Mysore. The discovery of a Roman silver piece of the age of Augustus along with those of the Mahārathi during excavations at the Bindipatti site in the Chandravalli area would only show that in no case can the Mahārathi coins be dated earlier than the first century A.D.[2] These Roman coins must have been in use for some time in the country after their introduction into India and therefore cannot be taken as a certain proof that the Mahārathis cannot be placed later than the first century A.D.

The next question that requires an answer is why there should be three sets of the Minor Rock-edicts in Mysore within such a narrow compass. An examination of the distribution of the edicts of Aśoka will perhaps provide an explanation. While the principal Pillar-edicts are found in places which must have been important cities and towns in the interior, the main Rock-edicts are invariably found near the border of Aśoka's dominion. In certain places they are found at places not far from each other as Dhauli and Jaugaḍa, and Shāhbāzgaṛhī and Mānsehrā. The group of the Mysore edicts would therefore seem to indicate the southernmost limit of Aśoka's empire. This part in the extreme south of the dominion was not apparently important enough to justify the engraving of a series of the main Rock-edicts at a later date anywhere in the neighbourhood, as was done at Yerraguḍi. Of course, it had a political importance in that it bordered on the territories of friendly powers, but the political relations with these powers must have been maintained from the headquarters at Pāṭaliputra or from the governor's seat at Suvarṇagiri. As we know, the same scribe was responsible for engraving all the three edicts. He must have been given a free hand in the selection of the rocks for this purpose, and exercised his discretion in selecting for this purpose suitable rocks, situated at close intervals.

In the whole series of the edicts of Aśoka the Mysore edicts are unique in one respect, namely, that the name of the scribe Chapaḍa is found engraved at the end. But out of the three words not directly connected with the edict which the scribe has written at the end, the first two are in Brāhmī and the last, consisting of five letters (*lipikareṇa*) he has chosen to inscribe in the Kharoshṭhī alphabet which was prevalent only in the North-Western Frontier. Vincent Smith concludes from this that the scribe was a northerner.[3] Though there is nothing against a northerner being in the service of Aśoka at headquarters or in one of the governors' seats, possibly sent south for a particular piece of work, there seems to be evidence against it. Though nothing can be determined from the name Chapaḍa,

[1] D. C. Sircar, *Successors of the Sātavāhanas* (Calcutta, 1939), Introduction, p. 3.
[2] *Excavation at Chandravalli* (Archaeological Survey of Mysore, Bangalore, 1931), p. 17.
[3] Vincent A. Smith, *Asoka* (third edition, Oxford, 1920), p. 153.

whether he was a northerner or not, he seems to have left a definite indication as to his habitat in the last word used by him. The actual word used here is *lipikareṇa*, while in Kharoshṭhī versions as Shāhbāzgaṛhī and Mānsehrā the Persian equivalent of the word, viz. *dipi* or *nipi*, has invariably been used, instead of *lipi*. Moreover, had he come from the north, one would have expected him to write the whole superfluous portion, which could not have been in the original draft supplied to him, in Kharoshṭhī, once he decided on the use of this script. What he does instead is to write two out of the three words in the script in which the rest of the edict is written, and to write only the last word in a different script. In the present instance the idea of the scribe seems to have been only to show off his knowledge of the Kharoshṭhī script, which he may have acquired not necessarily in the north but even in the capital city, where there must have been many possessing a knowledge of this script.

The next problem which I propose to consider in this paper, and which will be the last, has a bearing not only on the Minor Rock-edicts but on the edicts of Aśoka in general and the Pillar-edicts in particular. I have stated above that the Rūpnāth and the Sahasrām edicts give us a definite impression that at the time when these were issued the engraving of the principal Rock- and Pillar-edicts had yet to be carried out (above, p. 18). The relevant portion in the Sahasrām edict, which is clearer than the Rūpnāth version, can be translated as follows: 'And this matter you cause to be written on rocks or, where there are stone pillars here (i.e. in my territory), cause them to be written there also.' This declaration on the part of Aśoka would not only presuppose the existence of pillars within his empire but also that they were not inscribed at the time when these two versions of the Minor Rock-edicts were issued. Such being the case, it is possible to draw two conclusions, viz. (i) that, if Aśoka was responsible for the erection of the pillars, at least the Rūpnāth and the Sahasrām versions should be of a date later than the pillars, and (ii) that the pillars were erected earlier and not necessarily by Aśoka, and that he only made use of them for the purpose of having his edicts engraved. I have shown above, on evidence both external and internal, that the Minor Rock-edicts must have been the earliest of the edicts issued by Aśoka. Also, from what is stated in the seventh Pillar-edict, which is the latest of the edicts, it is evident that the pillars were erected by Aśoka himself (*dhaṁma-thaṁbhāni kaṭāni*). How are we then to reconcile these seemingly contradictory statements made in the two Minor Rock-edicts and the seventh Pillar-edict? Dr. Radhakumud Mookerji, who has considered this aspect of the question, sums up his views in the following words: 'Thus he (Aśoka) does not claim that all the pillars to bear his inscription were his own creation. Some of them were already found in his dominion, presumably the work of his predecessors. These were not always utilized for his purpose by Aśoka. Thus at Rampurwā one of the two pillars is uninscribed, as one was sufficient for the inscription of his edict and fulfilment of his desire. But evidence is wanting to show how and why they had been constructed before Asoka's time.'[1] Dr. Mookerji had not apparently paid enough attention to the passage in the seventh Pillar-edict, in which Aśoka asserts that the pillars were erected by himself. It cannot be argued that only *some* of the pillars were erected by Aśoka and the rest by one of his predecessors. There is such a homogeneity in all the pillars, both in fabric and nature, that it is impossible to suppose that they were raised by different rulers. It is, however, quite likely that, when Aśoka started the idea of erecting pillars, he did not do so with the express purpose of having his edicts engraved on them. Aśoka, both in the Rock- and Pillar-edicts, has said that he wanted his scripts of morality (*dhaṁma-lipi*) to be everlasting, and that may have been the reason which led him to have them engraved on rocks and pillars. There is now a consensus of opinion among

[1] Radhakumud Mookerji, op. cit., p. 374.

scholars that in issuing the Rock-edicts Aśoka was influenced by his Persian neighbours.[1] But can the same influence be traced in the case of pillars also? In Bhandarkar's opinion 'pillars were doubtless not unknown to the Persian structures. But the erection of pillars independent and not forming part of any edifices seems to have originated in India alone and is not found in Western Asia or Europe before the time of the Roman emperors.'[2] The tradition of erecting pillars in commemoration of a great victory (*jaya-stambha*), or sacrifices (*yūpa*), or in honour of a deity (such as Garuḍa-dhvaja), is, however, a very ancient one in India. Unfortunately we have no definite knowledge of any pre-Mauryan column in India. Though references to *yūpa* are abundant in the Vedic literature, the earliest stone specimen so far discovered goes back only to the third century A.D. This is not surprising as in the earlier days the sacrificial pillars were made out of different species of wood, as laid down in the *Śrauta-* and *Gṛihya-sūtras*. The earliest specimen of a pillar erected in honour of a Brahmanical deity is the famous monolithic column at Besnagar (ancient Vidiśā), set up towards the middle of the second century B.C. in honour of Vāsudeva by a Greek named Heliodorus who calls himself a Bhāgavata or a worshipper of Krishṇa-Vishṇu. As for a *jaya-stambha* or victory pillar, we have no definite archaeological evidence of its existence at such an early period. What, however, appears to me as likely is that the very idea of raising victory-columns may have originated out of the *yūpas*. There are sacrifices like the *Rājasūya* and *Aśvamedha* which only a *Chakravarti*-monarch was authorized to perform. Such sacrifices necessarily followed an extensive conquest made by a ruler, and the *yūpas* erected at the time had a special significance. In the course of time, however, with the popularity of Buddhism (among other reasons), such sacrifices became less and less common, and the idea of raising pillars in commemoration of such events seems to have grown more popular, with or without the sacrifices. Even at the time of Kālidāsa the word *yūpa* had not lost its significance as a *jaya-stambha*.[3] But can the Aśoka columns be regarded as pillars of victory in the ordinary sense of term? Evidence of his edicts seems overwhelmingly against this view. The edicts do not throw much light on the activities of Aśoka during the first eight years of his reign. But at the same time all the sources seem to point to the fact that the conquest of Kaliṅga was the only major conquest of his reign. We know from the thirteenth Rock-edict that Kaliṅga was conquered in the eighth year of his reign. We also know from his third Rock-edict that Aśoka paid a visit to the Saṁbodhi (Bodh Gayā) in the tenth year of his reign. Furthermore, we can deduce from the Minor Rock-edict I that he was converted to Buddhism about two years earlier, though he was not very enthusiastic at the beginning. It would therefore be natural to conclude that the Kaliṅga war was the turning-point in his life. The horrors of war which he himself must have witnessed inclined him towards Buddhism which faith he seems to have adopted within three years of the Kaliṅga war. Aśoka therefore seems to have erected these pillars not to commemorate his war-victories but to commemorate a different kind of victory, viz. the 'victory of morality' (*dhaṁmavijaya*) as he himself terms it in his edicts. Even the pillars are called by him 'pillars of morality' (*dhaṁma-thaṁbhāni*). To start with he does not seem to have had any idea of having them engraved. They were simply erected on the principal thoroughfare leading out of his capital city, or in some important places connected with the life of the Buddha and the history of Buddhism. At a later time, when the idea of issuing the edicts struck him, he naturally

[1] V. A. Smith, op. cit., p. 141; D. R. Bhandarkar, *Asoka* (Calcutta, 1925), p. 205.

[2] Bhandarkar, op. cit., p. 206.

[3] Cf. *Saṁgrāma-nirvishṭa-Sahasrabāhur=ashṭādaśa-dvīpa-nikhāta-yūpaḥ* |
Ananyasādhāraṇa-rājaśabdo babhūva yogī kila Kārttavīryaḥ ||
—*Raghuvaṁśa*, VI, 38.

made use of the pillars which were already there. The sequence in which the edicts appear to have been issued is, first the Minor Rock-edicts and then the principal Rock-edicts and last of all the Minor Pillar-edicts. For the sake of expediency he did not think it worth while to have all the pillars inscribed, and that is why we find some of them left as they were originally. As at Rampurwā, it may be elsewhere also, for some reason or other two pillars had been set up near each other, and therefore it was thought proper to have only one inscribed. The time factor also may have been a contributory cause. This is perhaps the reason why the seventh Pillar-edict, which is the latest of all his edicts, and which is very important in that it gives a résumé of the measures introduced by Aśoka in the propagation of his *dhaṁma* during the twenty-seven years of his reign, does not find a place on all the pillars.

Another evidence why the pillars could not be raised by any of Aśoka's predecessors is found on the pillars themselves. As I have stated above, there exists such a homogeneity in all the pillars that the conclusion that a single directing hand was responsible for all of them seems irresistible. Of the pillars now in existence, that those bearing the Minor edicts are Buddhistic in origin there cannot be any doubt. They are found at Sārnāth, Sānchi, Rummindei and Niglīva, all of which are connected with the life of one of the Buddhas or the history of Buddhism. But at first sight the same thing cannot be definitely said about the remaining pillars. On careful examination, however, even apart from the edicts engraved on them, there seems to be enough evidence to show that they were of a Buddhistic nature, and there was no predecessor of Aśoka who was a Buddhist by faith and who could have set them up. The animals which we now find surmounting the capital are the lion and the bull, wherever the figure has survived. But the Chinese pilgrims Fa Hian (A.D. 399) and Yuan Chwang (A.D. 629) mention the elephant and the horse also as animals figuring on them.[1] Significantly enough, all these four animals are also found on the capital of the pillar at Sārnāth, and are all connected directly with the life of the Buddha. The elephant is a reminder of the conception, when Māyā dreamt that a white elephant entered her womb. The bull, as shown by Foucher, 'incarnated the traditional date of the birth, the day of the full moon of the month Vaiśākha'.[2] The lion is a reminder of Buddha's connection with the royal family of the Śākyas, and of his being called the Śākya-siṁha; and finally the horse is Kanthaka, the courser who was born on the same day as the Buddha and was ridden by the prince Siddhārtha on the occasion of his Great Renunciation, when he went in search of the peace of Nirvāṇa. Moreover, *siṁha*, the 'lion' is often used as an epithet of the Buddha himself[3]; he is also the bull and the musk-elephant among the great leaders (*mahāgaṇi-vasabha-gandhahathi*),[4] and also a steed of man (*purisājañña*), i.e. a man of noble race. Even the lotus-motif on the Sārnāth pillar would recall to mind the lotuses which sprang up at each of the seven steps which the Buddha took as soon as he was born. There is therefore no room to doubt that the pillars are Buddhistic and were therefore set up by Aśoka himself and no other ruler.

[1] R. K. Mookerji, op. cit., pp. 83ff. According to a miniature reproduced by Foucher, the Lauriya Araraj pillar was surmounted by a Garuḍa (Smith, op. cit., p. 147), but Mookerji thinks it was a single lion (Mookerji, op. cit., p. 90).

[2] Foucher, *The Beginnings of Buddhist Art* (translated by L. A. Thomas and F. W. Thomas), p. 21.

[3] *Aṅguttara*, II, 24; III, 122. *Sañyutta*, I, 28, etc.

[4] *Epigraphia Indica*, XX (1929-30), p. 16.

NOTES ON CERTAIN METAL PINS AND A MACE-HEAD IN THE HARAPPĀ CULTURE

By STUART PIGGOTT

The isolated character of the Indus Valley or 'Harappā' civilization makes it imperative that such stray links as it may offer with the outside world be examined and re-examined constantly as knowledge advances. Only so can we hope to relate the earliest Indian civilization chronologically and culturally with the rest of Asia, and so ultimately to appraise its contribution to the main stream of human progress. In the present paper Professor Piggott, who has a first-hand knowledge of the Indian material, deals afresh with certain of these links.

THE prehistoric Indian civilization of the Punjab and the Indus Valley, known best from the great cities of Mohenjo-daro and Harappā, and named from the latter site the Harappā Culture, has among other distinctive peculiarities an extraordinary absence of contacts with the outside world. Essentially Indian in the mature phase in which the culture is alone known to us at present, we can trace little evidence of trade-relationships with the contemporary civilizations of Persia or Mesopotamia, and, although Harappā imports were certainly finding their way to the latter region in the second half of the third millennium B.C., there are few objects among the many thousands from the Indian sites that betray a foreign inspiration or origin. Any such objects that can be identified have therefore a proportionately great importance in establishing links between India and the West, and above all in throwing light on the chronology of the Harappā Culture, and its position in the time-scale worked out for the Mesopotamian prehistoric civilizations and the subsequent historical dynasties. It is the purpose of this paper to draw attention to five metal objects—four pins or rods with ornamental heads, and a small mace-head—found at Harappā, Mohenjo-daro and Chanhu-daro and having significant analogues outside India. Our enquiries into the origins of these types will lead us very far afield, and will suggest several interesting possibilities of trade and folk-migrations across the Old World, in which Europe and the Sind Desert, the Caucasus and the Cyclades, are linked by metal types derived from a common source in the Near East.[1]

Spiral-headed pins

The first type under discussion consists of a copper or bronze pin in which an ornamental head has been contrived either by splitting the wire at the top and twisting it into two flat spirals side-by-side, or in which a single spiral is made by turning over the top of the pin without splitting the metal. Two examples are known from the Harappā Culture, and their rarity emphasizes their intrusive nature. One, from Mohenjo-daro[2] (fig. *1, 2*), appears to belong to the second, single-spiral, type, but it is not certain whether there was not another branch at the top of the pin terminating in another spiral. The metal is heavily corroded and I was unable to determine, when examining this pin in 1944, whether or not

[1] I should like to express my gratitude to Dr. P. J. Jacobsthal for his illuminating comments on this paper in its draft form, though I do not wish to implicate him in any conclusions with which he may disagree, and for which I accept sole responsibility

[2] E. J. H. Mackay, *Further Excavations at Mohenjo-daro* (Delhi, 1938), I, 539; II, pl. C, no. 4.

such an arm had been broken off, or whether the whole pin was bent into its present shape. The second pin (fig. 1, 1) is from Chanhu-daro, and is a fine example of the double-spiral type.[1]

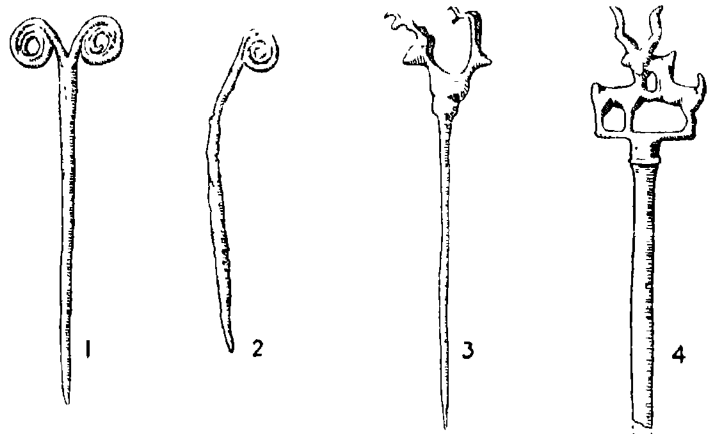


FIG. 1. *Bronze or copper pins and rod from. 1. Chanhu-daro, 2. Mohenjo-daro, 3. Mohenjo-daro, 4. Harappā.* ½

The exotic character of the Chanhu-daro pin was realized from the time of its first discovery, and an illuminating commentary on the distribution of the type was made by Childe in 1936,[2] which will form the basis of the subsequent discussion in this paper. For the present, however, it is important to ascertain the precise horizon of the two Indian finds in the sequence of Harappā Culture deposits at Mohenjo-daro and Chanhu-daro respectively.

The stratification at Mohenjo-daro as presented by Marshall and Mackay in their reports is by no means easy to follow or interpret.[3] Both the spiral-headed pin and another discussed later in this paper were found by Mackay in the DK area, where the excavations revealed the maximum depth of superimposed strata, but there is no stratified section drawn in the report and objects were in fact assigned to their respective horizons by means of levels beneath an arbitrary datum rather than by reference to the actual layer of soil or débris in which they occurred. From the verbal description of the successive building-levels given in the report, with their depths below datum, it is however possible to reconstruct a rough sectional diagram into which finds can be interpolated (fig. 2) and, while such a reconstruction can only be claimed as an approximation, it does give in convenient visual form a rough outline of the probable sequence encountered by the excavator in the central area of the DK Mound. An important feature in the sequence is the presence of thick layers of river-silt at various levels, indicating a flooding from the Indus, and of these three can be inserted on the diagram from Mackay's data. Such flood-levels must imply large-scale rebuilding after, and an effective sealing of strata before, their deposition.

A further complication which the diagram is designed to elucidate is the nomenclature of the building-phases. These were grouped into three main periods, Early, Intermediate and Late, these being again subdivided into three. The fact that flood-silt cuts across these main periods in each instance was not apparently regarded as an inconsistency by Mackay. But although the main phases are reasonably enough named in order from the bottom upwards, their subdivisions are numbered in reverse order, so that, for instance,

1 Mackay, *Chanhu-daro Excavations* (New Haven, 1943), p. 195, pl. LXVIII.

2 *Liverpool Annals of Arch.*, XXIII (1936), 113–119.

3 The inadequacy of the recording at Mohenjo-daro, Harappā and Chanhu-daro has been commented on by Wheeler, *Ancient India*, no. 3 (1947), p. 144.

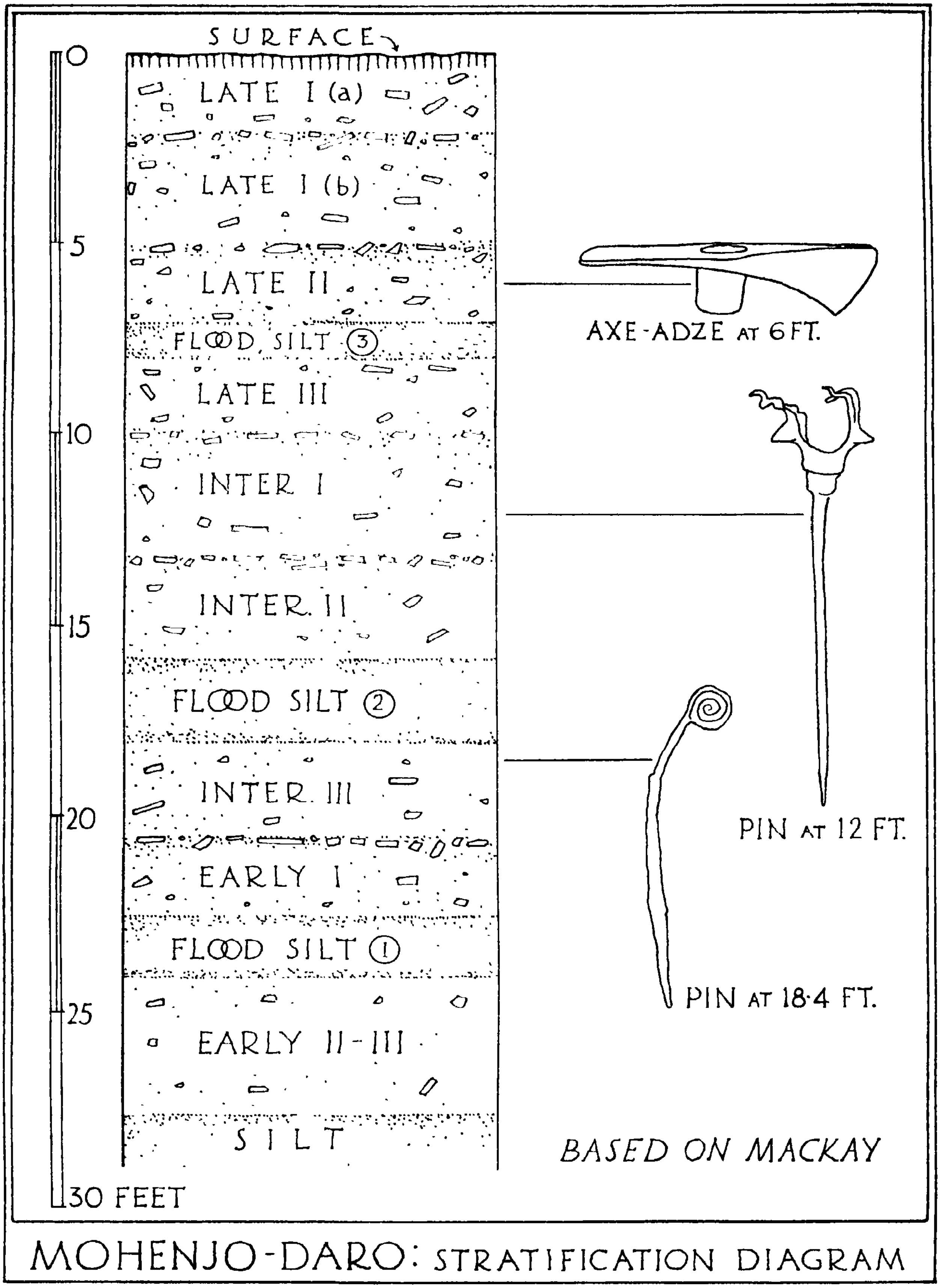

SURFACE
0
5
10
15
20
25
30 FEET
LATE I (a)
LATE I (b)
LATE II
FLOOD SILT 3
LATE III
INTER I
INTER. II
FLOOD SILT 2
INTER. III
EARLY I
FLOOD SILT 1
EARLY II-III
SILT
AXE-ADZE AT 6 FT.
PIN AT 12 FT.
PIN AT 18·4 FT.
BASED ON MACKAY
MOHENJO-DARO: STRATIFICATION DIAGRAM

Fig. 2

Intermediate Period Phase III follows on Early Period Phase I. This extraordinary system of reference can be very confusing, and indeed the whole account of the Mohenjo-daro stratigraphy is so complex and sometimes inconsistent that any discussion of its features must be prefaced by an explanation, and a disclaimer to have extracted more than an approximation from the published data.

With these necessary reservations, the position of our spiral-headed pin at a depth of 18·4 feet below datum brings it into the Intermediate III phase, apparently shortly before the second flooding of the site. Virgin soil was not reached in the DK area, owing to the present water-table, but flood-silt was encountered, above which two imperfectly distinguished building-levels lay, themselves covered by the silt of the first recognizable flooding of the city. Above this were two more building-phases, Early I and Intermediate III, before the second layer of flood-silt. Whatever its precise horizon, therefore, the Mohenjo-daro spiral-headed pin belongs to a fairly early stage of the site's history, and certainly cannot be regarded as intrusive from above. Its associated finds comprised the normal range of Harappā Culture types: it was found in an alley-way between two blocks of houses.

The Chanhu-daro pin with double-spiral head was found as part of a hoard of metal objects contained in a copper bowl, the hoard being numbered 2365 in the excavation report. The group of objects consisted of a second copper or bronze jar, a flat handled pan, an arrow-head, three caps for small staffs or similar objects, a knife, four spear-heads and two elongated axes or chisels (all Harappā types), and the pin under discussion. At Chanhu-daro, as at Mohenjo-daro, the system of recording finds ignored stratification, but by correlation of the datum-level and the contoured plan of the site it is possible to see that it was found very near the surface, not in significant association with Harappā types, and quite possibly is to be assigned to the phase of occupation on the site following the Harappā settlement—that characterized by pottery and seal types of the Jhukar culture. I have elsewhere commented on the unsatisfactory situation presented by this find [1]: if it is to be assigned to the Harappā occupation of Chanhu-daro, it must be to its final phase.

This Chanhu-daro pin is of a type well-known in Western Asia, and the Mohenjo-daro example is sufficiently closely allied to be considered with it in any discussion. Childe, in his basic study of this type, showed that it had a range from Greece to India, and must have been distributed by routes running east and west through Anatolia to North Persia and beyond, while in Europe derivatives of the double-spiral pin appear in the North Italian and Central European Middle and Late Bronze Age. He was able to show that such pins were being made by at least 2500 B.C. in the Eastern Mediterranean region, and that European derivatives could be up to a millennium later in date. As there are some finds additional to those known in 1936 to supplement our knowledge today, it will be worth while briefly reviewing the evidence afresh.

At least eighteen sites within the area covered by the map (fig. 3)—that is to say from Greece and the Lower Danube on the west to the Indus on the east, and bounded on the north by the Caucasus and the south by the Persian Gulf—have yielded spiral-headed pins. The distribution of these sites emphasizes the pattern already visible on Childe's map of ten years ago, and one sees a marked concentration in the Aegean-Anatolian region with a significant spread to northern Persia and Anau in Turkestan, and finally, after an intervening blank largely represented by unexplored Afghanistan, their appearance on the Indus. Purely regarded as a distribution-pattern, an origin in the more westerly region and a subsequent spread eastward is suggested, and it is noticeable that the classic regions of Sumerian civilization are not included in the known dispersal of the type, and this despite very extensive excavation in those areas. A non-Sumerian origin is therefore *a priori*

[1] In a note on the Jhukar phase pins from the site printed in Wheeler's paper cited above.

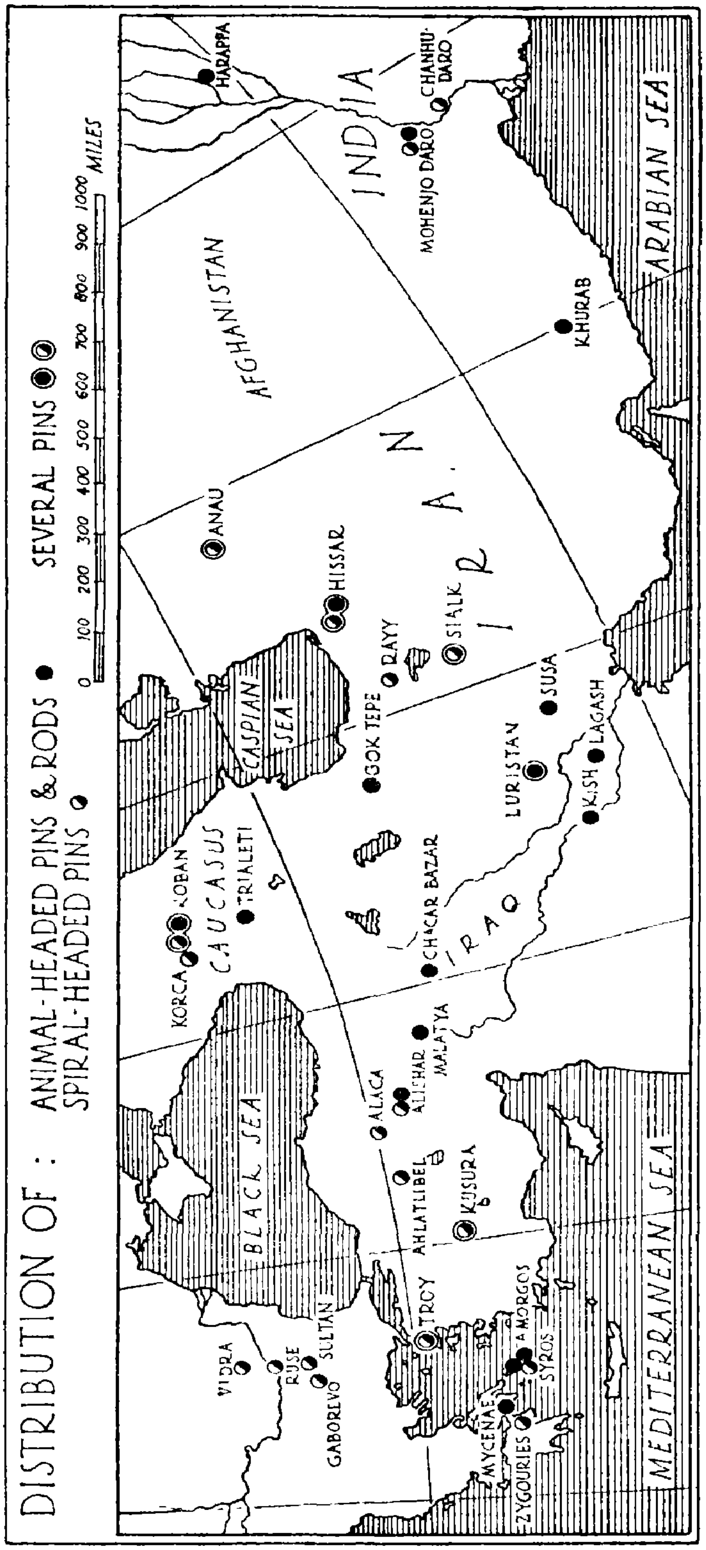


FIG. 3. Add to map: *Spiral-headed pin from Cyprus and animal-headed pin from Khalil Dalil, Kurdistan*

likely for these pins, even in the face of the dominating influence of Sumer in Western Asiatic metal types from about 2800 B.C. onwards.

An analysis of the associations of the pins, where known, gives us, with one notable exception, a consistent picture of their chronological status not incompatible with the movements suggested by the map. They occur in the Second City of Troy, dated by Blegen to 2500–2300 B.C.[1] Two silver examples from Syros in the Cycladic Islands [2] and another from Zygouries near Corinth on the Greek mainland are in Early Cycladic and Early Helladic contexts,[3] approximately contemporary with or a little earlier than the Trojan bronze specimens. At least four sites on the Lower Danube—Vidra, Ruse, Sultan and Gaborevo—have produced bronze pins of the double-spiral headed type, and at Vidra the pins from IIc and III in the site's stratification should equate with the Early Macedonian Bronze Age, with *c.* 2500 as a *terminus post quem.*[4] In Anatolia, as well as the pins from Troy II, such pins occur at Ahlatlibel,[5] and at Kusura in Period C,[6] dated by Winifred Lamb as *post* 2000, and there are related, though specialized, forms at Alishar,[7] mainly of the period of the Hittite Empire (twentieth to twelfth century B.C.) though perhaps also in Alishar II preceding this period. Among the remarkable finds of gold and silver from the so-called 'Royal Tombs' at Alaca Hüyük there is a double-spiral headed pin made in both metals from Grave L [8] —here a date after 2000 seems likely to me.

The consensus of the Anatolian-Aegean evidence is therefore in favour of an origin of the type in that region perhaps as early as 2600, but with a survival up to 2000 and beyond. One may note in this connection certain very specialized gold ornaments embellished each with a pair of double-spirals in wire, which are again known from the Alaca Hüyük 'Royal Tombs',[9] but also from Shaft Grave III at Mycenae (Late Helladic, about 1600) [10] and from a grave at Mari in Syria of the fourteenth century B.C.[11] A small example of the same type in silver has recently been published by Mallowan from Tell Brak in northern Syria, where it can be dated with some accuracy to about 2100 B.C. (*Iraq*, IX, Pt. 1 (1947), 74). Another example was found by De Morgan in the Talich (Azerbaijan), and there is one in the Cairo Museum presumably of Egyptian origin. (*Miss. Scientif. en Perse*, IV, fig. 85, 12; T. Burton Brown, *Studies in Third Millennium History* (1946), p. 97.) Though the origins of the double-spiral headed pins go back to the first half of the third millennium B.C., their main popularity in Anatolia seems rather to have been in the centuries around and after 2000. Among the rich bronze-work of the cemeteries

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1 Dörpfeld, *Troja und Ilion*, I, fig. 294. Schmidt, *Schliemanns Sammlung*, p. 254, no. 6401; Bittel, *Prähist. Forschungen in Kleinasien*, pl. 19, 24; Schliemann, *Ilias* (English edn.), p 505, fig 932. Cf Bittel in *Marburger Studien* (1938), p. 13, for Egyptian parallels. Blegen's chronology is in *Amer. Journ. Arch.*, XLI (1937), 563.

2 Tsountas in *Ephemeris Archaiologike*, 1899, pl. 10, nos. 15, 16.

3 Blegen, *Zygouries*, pl. XX, no. 9. Jacobsthal draws my attention to a double-spiral headed pin from Cyprus (omitted from my map—see Ohnefalsch-Richter, *Kypros*, pl. 146, I *b*.)

4 Childe, *Dawn of European Civilization* (1939 edn.), p. 124, with refs. for all four sites; Ruse pins in *Real. der Vorgeschichte*, II, Taf. 93.

5 *Türk Tarih Ark. v. Etnog. Dergisi*, II (1934), 93, fig. 355; Childe in *Liverpool Annals*, loc. cit.

6 *Archaeologia*, LXXXVI (1937), 41.

7 Schmidt, *Alishar Hüyük, 1928-29* (1932), p. 161; van der Osten, *Alishar Hüyuk 1930-32* (1937), II, fig. 283.

8 *Illustrated London News*, 21 July 1945, p. 78. Miss Lamb dates the Alaca tombs as *c.* 2500-2000 (*Anatolian Studies pres. to W. Hepburn Butler* (1939), 148).

9 Arık, *Fouilles d'Alaca Hoyuk 1935* (1937), pl. CCXLIX. Kosay, *Ausgrabungen von Alaca Hoyuk* (1944), pl. CIX, 12 and 26.

10 Karo, *Die Schachtgräber von Mykenai* (1933), p. 52, pl. XXI. Evans, *Shaft Graves and Bee-hive Tombs of Mycenae* (1929), p. 47.

11 *Syria* (1937), p. 83.

north of the Caucasus, such as that of Koban and Korca, single- and double-spiral headed pins occur,[1] in contexts vaguely dated between the thirteenth and ninth centuries B.C. by Tallgren. The European derivatives of the double-spiral type date from the fourteenth century and later: at Taranto in a stratified site double- and single-spiral headed pins were found in associations that could be dated as not earlier than 1300,[2] and the other European examples persist even later, the most remote being one from Dorset in southern England, found with a burial of the Late Bronze Age of the seventh or eighth century B.C.[3]! There was indeed a splendid renaissance of double-spirals in Early Iron Age Europe in the seventh century B.C.

When one turns to the North Persian evidence however, we encounter a paradox. At Tepe Sialk near Kashan double-spiral headed pins were found in Period IV of the site's occupation, and the stratum representing this period contains polychrome pottery in the Jemdet Nasr style and 'proto-Elamite' inscribed tablets of equivalent date, thus placing Sialk IV well into the fourth millennium B.C.[4] The double-spiral motif on painted pottery appears, in fact, in Sialk III, and in the contemporary Hissar Ib, but on pottery as in metal it also occurs in later contexts, as for instance in the Jhukar levels at Chanhu-daro (Mackay, *Chanhu-daro Excav.*, pl. XLV, 19). The pins at Sialk must therefore antedate the Cycladic or Trojan examples by at least a thousand years, and though at present this evidence for such a remote date stands alone, it obviously cannot be disregarded. We can only say that the type, unknown in the whole series of metal pins from Sumer, yet does make an isolated appearance in one North Persian site at an extremely early date. The relationship of the Sialk pins to those further west must for the present remain unsolved.

At the site of Hissar, only two hundred miles north-east of Sialk, double-spiral headed pins appear in the Hissar II phase, and persist into Hissar III.[5] It might be possible to make a chronological equation between Sialk IV and Hissar II if McCown's claim for a high dating for Hissar III were to be accepted, and this phase were to begin at a time contemporary with the beginning of Early Dynastic Sumer, but I have shown elsewhere some of the difficulties inherent in such a view. I cannot see that a date earlier than *c.* 2500 for the beginning of Hissar III is really defensible, and would prefer to bring it much near 2000—were such a date accepted, the pins would be in a context in every way compatible with the Anatolian evidence. The third period at Anau in Russian Turkestan,[6] which likewise yielded double-spiral headed pins, must run parallel to Hissar III, whatever the date of the Persian site, and again I feel that Anau III should, in view of its Indian points of contact, be dated late rather than early in the third millennium.

We have carried our survey of spiral-headed pins eastwards to the frontiers of India, where the two examples that prompted our original enquiry were found, one apparently early in the sequence of Harappā culture deposits at Mohenjo-daro, the other at the end of the Harappā phase or in that of Jhukar, at Chanhu-daro. We have seen that were we to accept the Sialk evidence unreservedly, there would be no difficulty in a type which had

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[1] Chantre, *Récherches Anthrop. dans le Caucase* (1886), II, pl. XX. Double-spiral headed pin from Korca, Hancar in *Eurasia Septent. Antiqua*, VII (1932), 113–182, fig. 31.

[2] Drachma (Nilsson Festchrift, 1939), pp. 458–490; cf. *Antiquity*, XVI (1942), 189.

[3] A nineteenth-century find from 'a barrow in Dorset' with a Late Bronze Age spearhead, acquired by the British Museum in 1944. Unpublished.

[4] Ghirshman, *Fouilles de Sialk*, I, p. 64; pl. XCV, *a*, *e*.

[5] Schmidt, *Excavations at Tepe Hissar*, pl. XXIX, H. 4356 from Hissar II; pl. XLVIII, H. 3496 from Hissar IIIA. Double-spiral headed rods ('wands') are common in IIIC (p. 194). The pin probably from Rayy shown on the map is in the Louvre and is referred to by Childe, loc. cit.

[6] Pumpelly, *Explorations in Turkestan*, I, 152.

originated in Persia in the fourth millennium appearing in the Indus Valley in the third, but if we look for an Anatolian-Aegean origin about 2600, it is hardly likely that the Mohenjo-daro pin should have arrived in India until several centuries after this date. In the developed form in which we know it, the Harappā Culture did not make effective contacts with Sumer before about 2300 B.C., and though the fragment of a carved steatite bowl from the lowest levels of Mohenjo-daro could (on Sumerian evidence) be dated as early as 2800, yet the presence of the spiral-headed pin at a depth of eighteen feet (whatever the precise stratigraphy) would go to reinforce the lower date for the known occupation of the site, and give us reason to suppose that a date of about 2000 would not be out of place for a centre-point in the history of the long occupation of Mohenjo-daro. At Chanhu-daro, we may use the presence of the pin in the debated hoard either to indicate that the end of the Harappā phase on the site was not much earlier than 2000, or that the Jhukar settlement was established in the ruined town sometime after this date—both perfectly reasonable arguments and fully compatible with other evidence. But the Chanhu-daro find does suggest that a late rather than an early date for the presence of spiral-headed pins in India is to be preferred.

Animal-headed pins and rods

We may now turn to another distinctive type of pin or rod, known from two finds, at Harappā and Mohenjo-daro respectively. At the former site, at one foot below the surface in Area J, Trench III, was found a bronze rod,[1] broken but not tapering and so therefore probably not a pin, with its head formed by a little group cast in the round, representing a horned deer or antelope attacked by a dog, which is biting the beast's ear. The position and conditions of finding of this object are such that it cannot usefully be related to any phase of the Harappā occupation, but may at least belong to its final period or even to one after the main occupation of Harappā was over. The Mohenjo-daro find[2] was made in the same DK area that produced the spiral-headed pin already discussed, and was 12 feet below the arbitrary datum to which finds were referred. If my tentative equation of datum-readings and flood-levels in the DK area is approximately correct, the object was found in the Intermediate I level, between the second and third flood-silts. It is a bronze pin, the decorative top of which is formed by a pair of animal heads, cast in the round, apparently of the Black Buck (*Antelope cervicapra*).

These two objects have no parallels in the Harappā culture at large, but seem to me to belong to a large group of pins and rods adorned with animals and sometimes having little scenes such as the beast attacked by dogs, or as we shall see, such ambitious conceptions as a ploughing or dancing group. We may conveniently group these latter types as 'anecdotal' pins or rods. The distribution of such decorative objects is wide, but nevertheless within certain limits in Western Asia and Eastern Europe, and, as the map (fig. 3) shows, this distribution has considerable agreement with that of the spiral-headed pins we have already discussed. I do not know of any previous treatment of these animal and anecdotal pins as a whole, though certain points of similarities and contacts have already been indicated. Representative examples are shown in fig. 4.

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[1] Vats, *Harappā Excavations*, II (Delhi, 1940), pl. CXXV, 34, 36; I, 390.

[2] Mackay, *Further Excavations*, pl. C, 3; I, 539. Attention was first drawn to the importance of the Harappā and Mohenjo-daro bronzes, here discussed, by M. E. & D. H. Gordon in 1940 (*Journ. Royal Asiatic Soc. Bengal, Letters*, VI (1940), 65). The Gordons perceived the western contacts which the animal-headed ornaments implied.

Unlike the spiral-headed pins, we can with some confidence go to fourth-millennium Sumer for the earliest examples of such types of ornament. Animal-headed pins are known

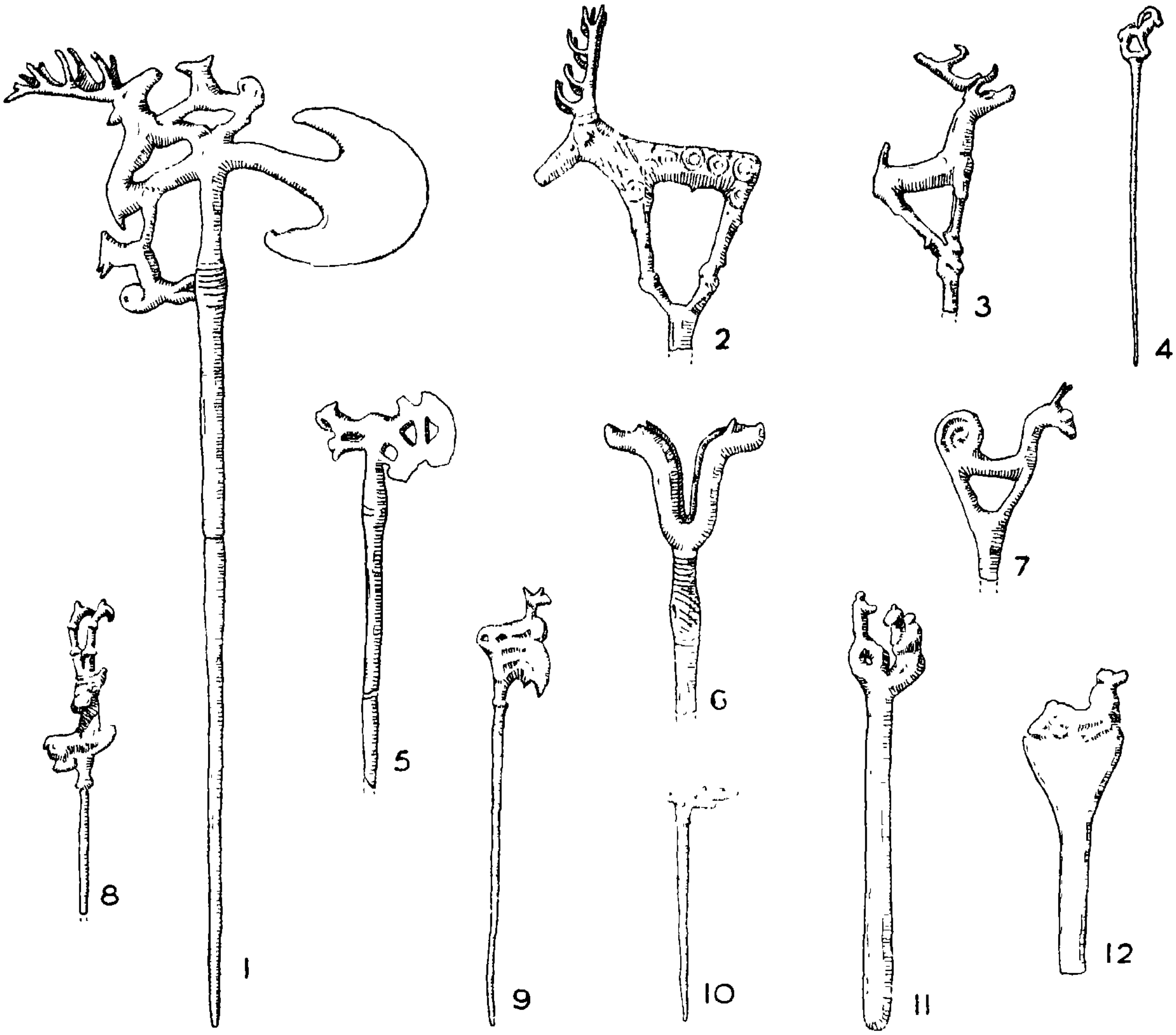


FIG. 4. *Pins and rods (all bronze except 2, electrum, gold and bronze; 4, gold) from: 1. Kobān, Caucasus; 2. Alaca Hüyük, Turkey; 3. Caucasus; 4. Shaft Grave IV, Mycenae; 5. Trialeti, Caucasus; 6. Kobān, Caucasus; 7. Arslan Tepe, Malatya, Turkey; 8. Luristān, Persia; 9. Luristān; 10. Gök Tepe, Persia; 11. Hissar, Damghan, Persia; 12. Khurab, Persian Makrān. Scales: nos. 1, 4–7, 11—one-half; nos. 2, 3, 8–10, 12—one-quarter*

from Uruk contexts at Susa,[1] and probably of this date too is the famous 'Dancers Pin' from Lagash, with a pair of human figures dancing on the top.[2] At Kish, bull-headed pins were found in the 'A' cemetery, of Early Dynastic date,[3] and at Chagar Bazar one pin with a pair of doves on the top and another with a goat's head were found in a

[1] *Mém. Délég. en Perse*, XXV, 197, fig. 34; VII, 82, pl. XIX, 3.
[2] Genouillac, *Fouilles de Telloh*, I, (1934), pl. 10, p. 46.
[3] Mackay, *Report on Excav. of 'A' Cemetery, Kish* (1925), p. 46.

similarly dated context,[1] so we can say that both the animal-headed and the anecdotal type of pin were known by about 2800 B.C. in Sumer, Elam and on the Khabur River, though apparently nowhere a very common or popular type. Whether in fact these occasional examples can be used as evidence for the time and point of origin of the later group with which we shall be concerned is another matter.

A mid third millennium date can be given to three pins from the Aegean in Early Cycladic contexts—two from Syros[2] have respectively a human figure and a bird by way of heads, and the third, from Amorgos, has a figure of a ram.[3] In Mainland Greece, there is a very interesting gold pin with a ram at the top from Shaft Grave IV at Mycenae, about 1600 B.C.,[4] to which we will return later. In Anatolia, there is a bird-headed pin of Hittite Empire date from Alishar.[5]

A pin from Malatya, of uncertain context but probably Hittite, has a stylized horned animal with its four feet drawn together on to the small space at the pin's head, and a fantastic spiral tail.[6] The characteristics of this pin lead us to the Caucasus, where in the cemeteries of Koban and adjacent sites a very characteristic and persistent animal style of ornament is associated with a large series of pins, which often develop into fantastic forms capped either with simple animals, often with the feet drawn together on to the pin-head, or with anecdotal groups which include the actual scene of a deer attacked by dogs. The large pins which bear this spirited representation have the added features of a symbolic miniature axe-blade set at right angles to the shaft of the pin,[7] and this curious type, combining axe and animal representations, occurs again in one of the barrows at Trialeti on the other side of the main Caucasus range.[8] In the Koban series again we see pins crowned with a pair of double animal-heads in the manner of the Mohenjo-daro pin.[9] The date of the great series of Caucasian cemeteries is usually rather vaguely placed within the thirteenth to ninth centuries B.C., but perhaps slightly more precision can be gained by the Trialeti evidence, for the animal-and-axe pin there comes from a gravel ater than the 'Chieftains' Graves', which as Schaeffer has shown must date *c.* 1550–1400.[10]

The stylistic affinities between the Caucasian series of animal-ornamented metal-work and that from the plundered graves of the Luristān district of Iran has been commented on by many writers, and Hancar has made a detailed study of this point.[11] The date of the Luristān bronzes can be partly fixed by inscribed objects which can be dated in terms of the historical sequence of ancient Sumer and Elam, and Przeworski, while giving a general date between 1200 and 600 B.C. for the majority of the finds, feels that some may go back to 1400 or even earlier.[12] While the Luristān metal-smiths raised the art-style of fantastic

[1] Mallowan in *Iraq*, III (1936), 27; ibid., IX (1947), 81.

[2] Tsountas, loc. cit., pl. 10, 10, 13.

[3] Tsountas, *Ephemeris Archaiologike*, 1898, pl. 8, 66.

[4] Karo, *Die Schachtgräber*, pl. XVIII, 245; Evans, *Shaft Graves*, fig. 34*b*. Present paper fig. 4, 4.

[5] van der Osten, *Alishar Huyük 1930–32*, II, fig. 283.

[6] Przeworski, *Die Metallindustrie Anatoliens* (1939), pl. XIV, 3. Present paper fig. 4, 7.

[7] At least three such pins are known—at St. Germain (Chantre, op. cit., II, pl. XX—present paper fig. 4, 1). Vienna (Hancar in *Eurasia Septentrionalis Antiqua*, VII (1932), 113, fig 17*c*) and Leningrad (Hancar, loc. cit.). They fall into Hancar's third group of his classification of the prehistoric Caucasian pins.

[8] Kuftin, *Archaeological Excavations in Trialeti* (Russian with English summary, Tiflis, 1941), fig. 87.

[9] Chantre, loc. cit. Present paper fig. 4, 6.

[10] Schaeffer in *Antiquity*, XVII (1943), 183. Jacobsthal expresses doubts as to Tallgren's upper limits of date for the Koban cemeteries.

[11] Hancar, *Eur. Sept. Ant.*, IX (1934), 47; Przeworski, *Survey of Persian Art*, I, Chap. XI; Fossing, *Fra Nationalmuseets Arbejdsmark*, 1933, p. 20, fig. 8 shows a Luristān pin in a very Caucasian style. Present paper fig. 4, 9 is from Hancar, loc. cit.; fig. 4, 8 from Przeworski; fig. 4, 3 (Caucasus) from Evans, *Shaft Graves*, fig. 34, f.

[12] *Archaeologia*, LXXXVIII (1940), 229–269. Full bibliography.

animal ornament to a high degree of sophistication, the essentials are those of the province of barbaric metal-work which was perceived many years ago by Sir Arthur Evans to form a unit stretching from the Caucasus to the Trans-Caspian region. And within this province we should include the figures of stags from the 'Royal Tombs' of Alaca in Anatolia, which, although larger than the majority under discussion, and probably capping poles as standards, are nevertheless clearly related to the Caucasian series.[1] As we have seen, the Alaca graves appear to date from the centuries around or perhaps after 2000 B.C.

The extension of the Caucasian and related styles of decorative metal-work eastwards to the Caspian is attested by the finds from the third settlement at Tepe Hissar near Damghan. Here a curious series of 'wands' or rods crowned with animal or anecdotal devices, as well as double-spirals, were found, the former again comparable to the main series under discussion.[2] A ploughing scene has a good parallel from the Koban cemeteries, and a Hissar III 'wand' crowned with a stylized bird also seems to have an axe-blade comparable to the Caucasian examples already mentioned.[3] 'Wands' in this Hissar III manner are also known from the site of Shah Tepe, to the north,[4] but here the animal ornament is absent.

Apart from an undated pin from Gök Tepe,[5] east of Lake Urmia, and another from Khalīl Dalīl, Kurdistan,[6] the only remaining object related to this animal ornament group I have been able to trace comes from Khurab, just over the border in Persian Makrān.[7] Here, Stein found a cemetery the pottery-types of which relate it to that of Shāhi-Tump not far away to the east, and from a grave came a copper or bronze rod with a flat expanded end on which a representation of a seated camel is placed. Now this object has great intrinsic importance as being one of the excessively rare representations of a camel in ancient oriental art, but apart from this it seems to fall into the general group of animal-headed rods under discussion, the spatulate form of the upper end (without an animal) being paralleled on 'wands' at Shah Tepe.[8] The date of the Shāhi-tump cemetery, and therefore by implication that of Khurab, can hardly be earlier than 2000, and broadly contemporary with Hissar III, Anau III and the main series of graves at Shah Tepe. The Khurab rod therefore would be in a very satisfactory context, chronologically and culturally, in relation to comparable sites in Iran and Turkestan.

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[1] Arik, op. cit., pls. CCII–CCV; (Tomb BM); CCLXXI (Tomb TM); Kosay, op. cit., pl. LXXXIV (Tomb MA); XCVI (Tomb MC1); *Illustrated London News*, 21 July, 1945, p. 78. These figures, and other bronzes from the same series of graves with horned animals' heads, have a strong stylistic affinity with the Caucasian figures under discussion. For the circle-ornament on the stag 'standard', present paper fig. 4, 2, cf. objects (including an animal figurine) from Hissar III (Schmidt, op. cit., 188, 217). The Maikop animal figures should not be forgotten in this context.

[2] Schmidt, op. cit., p. 194. 'Family group' rod, present paper fig. 4, 11.

[3] Ibid., H. 4279. Note also the double-animal 'protome', pl. XLVI, H. 5141, and compare with the Koban pin, present paper fig. 4, 6, and an object from the great Stepan-Zminda (Kasbek) hoard (Bayern, *Gräber u. Schatzfunde in Kaukasien*, pl. III, no. 5 (Supplement to *Zeitschrift für Ethnol., 1885*)). Heine-Geldern has already drawn attention to this and other points of similarity between Hissar III and the Caucasian bronzes (*Journ. Indian Soc. Orient. Art*, IV (1936); *Bulletin Iranian Art and Arch.*, V (1937), 7–16).

[4] Arne, *Excavations at Shah Tepé, Iran* (1945), p. 301.

[5] Herzfeld, *Iran in the Ancient East*, fig. 275. Present paper fig. 4, 10. For Gök Tepe, cf. *Zeitschrift für Ethnologie*, XXX, 522.

[6] *Bull. Soc. Préhist. Française*, XXIX (1932), 431. I have not been able to identify this site for inclusion on my map, fig. 3. It is a pin with a ram's head.

[7] Stein, *Arch. Reconnaissances* (1937), pl. XVIII.

[8] Arne, op. cit., p. 298, nos. 637, 646*a*, *b*. *c*.

Our survey of comparative material in Western Asia has shown us that the Harappā and Mohenjo-daro pins with animal-ornamented heads belong to a well-defined group which is represented by finds as far apart as the Aegean and the Caspian, but with its centre of gravity in the Caucasus and North Persia. A few scattered examples show that the idea of ornamenting pins with decorative heads based on animal or human forms was known to the ancient civilizations of Mesopotamia and Elam in Early Dynastic or even earlier times, about the turn of the fourth and third millennia B.C., but these never seem to have attained the popularity or variety of the northerly group. They may have provided an ultimate prototype for the Early Cycladic and Early Helladic examples of the middle of the third millennium in the Aegean, but there is a strong feeling of stylistic dissimilarity between these rather sober and sophisticated ornaments and the tense, barbaric exuberance of the best Caucasian and Luristān bronzes. These in fact belong to the peoples outside the city civilizations of the Mesopotamian plain, to the folk of the steppes and of the mountains, the axis of whose trade and migrations ran east and west through Anatolia, and skirted the Elburz Mountains and the Caspian Sea to reach the plains of Turkestan and the far boundaries of the Chinese world.

The importance of this great province of early metal-work in which animal-ornament played such a part was recognized by Evans in typically prescient manner when he was considering the strange barbaric and non-Minoan elements in the Mycenae shaft-graves—the gold animal-headed pin and those imitating fallow-deer antlers from Shaft Grave IV, the silver rhyton in the form of a red deer from the same grave, and the double-spiral gold ornaments from Grave III. He traces the influence of the Caucasian animal-style 'as far as Siberia and the Finno-Ugrian North and Eastwards across the Tatar steppes of Central Asia to beyond the borders of China', and points to its influence on the European Hallstatt Iron Age cultures[1]; Jacobsthal has recently shown its great importance in the La Tène art of Europe in the fifth and fourth centuries B.C.[2] But these are the lower limits of a style which was already ancient, though preserving its identity and its vigorous originality, and we must turn to the evidence for its beginnings.

I think it is likely, as I have said above, that we need not consider the Sumerian examples of Uruk or later date as anything more than part of the ingenious experimentalism in metal-work that characterizes that region about Early Dynastic times. They founded no style in the land of their origin, and the Aegean pins alone seem claimants for a possible descent from such types. But the animal-style on pins, rods and standards as seen in the Koban cemeteries, the Alaca tombs or those of Luristān, and again in Hissar III, is something homogeneous, with a certain unity underlying all its diverse manifestations. We are dealing with a group of cultures closely allied to, or sometimes identical with, those making the spiral-headed pins discussed above, and it is interesting to notice how the tails of animals at Koban, or on the Malatya pin, are sometimes turned into decorative spirals themselves. The spiral-headed pins, as we have seen, may at Sialk go back to the fourth millennium, but elsewhere the evidence is consistent for a central date of about 2000 B.C., with a persistence certainly until 1500 or so.

With such a date the evidence for the chronological horizon of the animal-headed pins and rods is in agreement, with perhaps a bias to the later figure. About 2600 at Amorgos and a date soon after 2000 at Alaca and Hissar III seem likely, and the persistence of the style

[1] Evans, *Shaft Graves*, p. 44. One may note an extraordinary pin of Caucasian animal-headed type in a Late Bronze Age hoard from Rovalls in Gotland (Sweden) (Hansson, *Gotlands Bronsålder* (1927), pl. 30, no. 148).

[2] Jacobsthal, *Early Celtic Art*, I, *passim*, esp. pp. 45ff. For the later inter-action of this and other animal-styles in East Europe and Asia, cf. Minns, *The Art of the Northern Nomads* (*Proc. British Acad.*, XXXVIII (1942)).

(and perhaps its finest development) into the middle of the second millennium is attested by the finds from Mycenae (about 1600), Luristān (from about 1400), Trialeti (after 1400), and the Koban cemeteries (from about 1300). At Khurab the apparently analogous object should be after 2000, and in general we should not be far wrong, I feel, in believing that in Western India such pins and rods should be regarded as imports from a North Persian-Caucasian province at a date nearer to 1500 than 2000 B.C.

The problems raised by such a late date for the Mohenjo-daro pin, found at a considerable depth in the DK deposits, are of course considerable. Although no great reliance can be placed on stratification at this site owing to what Wheeler has rightly called an 'incredible' system of recording finds, there seems little doubt that, all things being equal, it should be rather later in date than the spiral-headed pin already discussed, but nevertheless appreciably earlier than the shaft-hole axe-adze found at a depth of six feet in the same general region. Now this axe-adze, as is well known, is an unambiguous import from the west, where it is exactly paralleled at Hissar III and other contemporary sites and should therefore be broadly speaking of the same date as the spiral-headed and animal-headed pins and rods described in this paper. If the evidence of stratigraphy at Mohenjo-daro be accepted (in its widest and most general terms), it looks as though we must consider a continuous process whereby occasional objects from the North Persian culture-province found their way to the city almost throughout its long history. If we cannot place the earliest of these imports (the spiral-headed pin) much before 2000, if at all, the date of the animal-headed pin and, even more, of the axe-adze, must come very much nearer a lower limit of about 1500.

A mace-head from Chanhu-daro

The Chanhu-daro excavations produced a metal object that has not received the comment it deserves. It is a copper or bronze casting described by Mackay, the excavator, as a 'fluted cosmetic jar', though he was careful to point out that the 'base' was rounded, so that the object could not stand.[1] This however he regarded as evidence of an unfinished casting. It seems more likely that this bronze is in fact a small mace-head, the rounded 'base' being its top, where the curvature would in no way interfere with its function and would give a more pleasing finish. I have already commented on the ambiguity of the Chanhu-daro stratification and recording in describing the hoard which contained the double-spiral pin discussed earlier in this paper, and all one can say of the location of the mace-head is that it seems approximately to equate with the hoard in question, and to belong to the final phase of the Harappā occupation of the site or the subsequent Jhukar horizon.

The affinities of the mace-head seem to lie with certain Persian specimens which share the characteristics of a tubular stem, often enriched with mouldings, a globular or ovoid head which may be fluted or knobbed, and an upper element with a moulding or flared-out expansion. In the examples known to me the perforation is continuous from end to end of the object, but at Chanhu-daro the upper end is solid.

Comparable examples are shown in fig. 5, and the generic similarity can be seen, though exact parallels are not forthcoming at present. A specimen from Hissar III[2] has the stem ornamented with ring-mouldings, and the head has elongated blobs in relief; that from Luristān[3] (hitherto unpublished) is a more slender type, but with a boldly fluted

[1] Mackay, *Chanhu-daro Excavations*, pl. LXXIII, no. 39.

[2] Schmidt, op. cit., pl. LII, H. 771.

[3] In the Frank Savery Collection, but not included by Przeworski in his paper in *Arch.*, LXXXVIII, 229. Exhibited in the Ashmolean Museum, Oxford, in 1946.

head and above this a flared-out terminal. A third specimen shows a clumsy and probably rather degenerate example of the same general type, with ring-mouldings, circular knobs

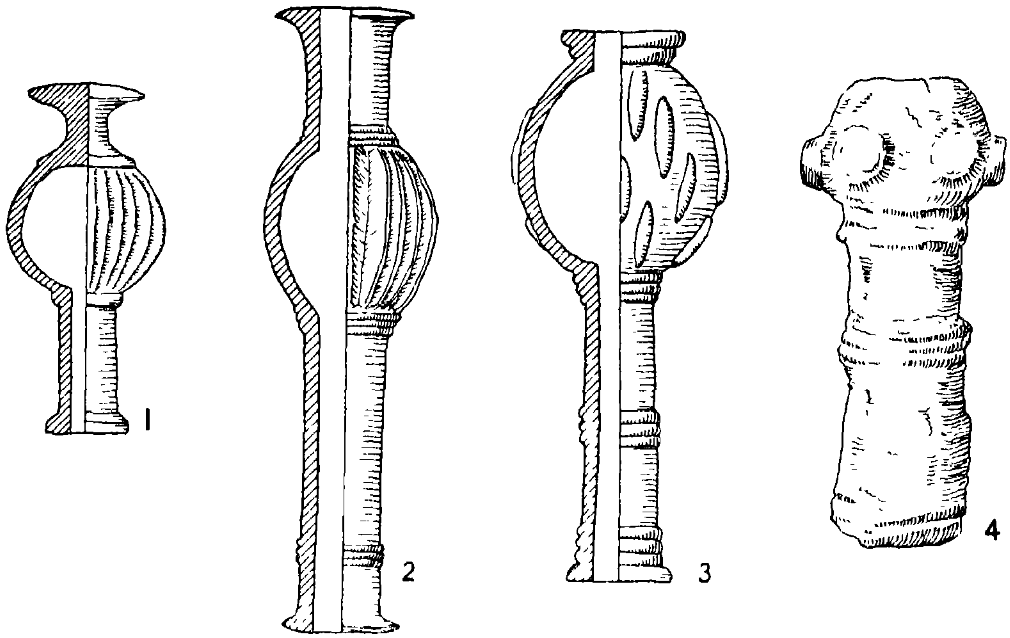


FIG. 5. *Bronze mace-heads from · 1. Chanhu-daro; 2. Luristān, Persia; 3. Hissar, Damghan, Persia; 4. B Cemetery, Sialk, Persia.* ½

and no finial (though this may have corroded away in this badly-preserved specimen). This last mace comes from the B Cemetery at Tepe Sialk.[1] A probably comparable type (not illustrated) is known from Susa, where it is assigned to 'Susa II', but the grave furniture seems to be unusual, and no evidence for this date is given in the published account.[2]

An origin for the Chanhu-daro mace-head in Persia seems therefore likely. The chronological range of the known examples should be about 2000 in Hissar III, with at least a possibility of a lower limit, while the Luristān group of bronzes as we have seen do not seem to go back before about 1400. The B Cemetery at Sialk contains sword-types that can be dated to the time of Shalmaneser III (858–824 B.C.) and iron tools and weapons are present, but earlier traditions are represented in, for instance, the axe-adze amulets of Hissar III-Shah Tepe type. The Susa specimen, if the dating is reliable, would provide an early third millennium prototype for the whole series.

The Chanhu-daro find is then yet another piece of evidence pointing to trade contacts or folk movements from the west affecting India at the end of the Harappā phase, and such chronological evidence as we have suggests that it arrived after 2000 B.C. rather than before, and possibly some centuries later.

If we regard the earlier exotic objects at Mohenjo-daro (the spiral-headed and the animal-headed pins from the DK area) as the result of trade, or of the intermittent arrival of folk from the west in the Indus Valley, the latest import on that site (the axe-adze) can hardly be dissociated from the double-spiral pin and the mace-head at Chanhu-daro, nor the more conclusive evidence from this site and from Jhukar and Shāhi-tump for actual

[1] Ghirshman, op. cit., II, pl. XXVI, 10.

[2] *Mém. Délég. en Perse*, XXV, 215, fig. 59.

movements of peoples into Western India at a time when the Harappā civilization was in decline or actually defunct. More than one archaeologist, notably Heine-Geldern,[1] has sought to identify in certain types at Hissar III and elsewhere the presence of the speakers of an Indo-European language who in India called themselves the Aryans, and would see in the archaeological evidence of such eastward migrations as we have noted above, the actual arrival of these folk in India. The traditional date for the compilation of the Ṛig-veda is about 1400 B.C., and to 1380 B.C. belongs the famous Hittite treaty-document with the Mitanni which invokes gods closely corresponding to some in the Vedic pantheon. Wheeler's recent work at Harappā [2] has shown that the defenced cities of the aborigines, which in Vedic tradition were attacked by the Aryans, are very likely to have been those of the Indus Valley civilization, and the chronological and cultural information we have been able to extract from our study of the pin-types is not without importance here. It does add a little additional evidence for the arrival of invaders from the steppes at a date which may not be so far removed from that reached by the literary and philosophical dead-reckoning from the death of Buddha, which seems to have been used to arrive at a date for the compilation of the earliest Sanskrit literature.

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[1] See his two papers cited on p. 36, footnote 3.

[2] *Ancient India*, no. 3 (1947), p. 82.

TAXILA (SIRKAP), 1944-5

By A. Ghosh

Indian, Graeco-Roman and Chinese literature have combined to endow Taxila, on the border of the Northern Punjab and the North-West Frontier Province, with a wealth of historical or semi-historical associations of an exceptionally circumstantial kind. Geography supplies a partial explanation. The city lay on a much-used highway which tapped the trans-Asiatic 'silk-routes' at Bactra on the Oxus-plain of northern Afghanistan. It lay also within the Indus-system, which linked it with the Arabian Sea and thence alternatively with the Red Sea and the Persian Gulf. The Grand Trunk Road which connects it today with Mathurā and beyond is an ancient artery through which economic, political and cultural streams flowed to and from the Northern Plains of India. It is not surprising that for nearly a thousand years the city, on three successive but adjacent sites (Bhīr Mound, Sirkap and Sirsukh), ranked high amongst the cities of Asia, and that its civilization for much of that time provided a remarkable intermingling of Indian and Western elements.

To its other distinctions, Taxila adds that of being the most-explored ancient site of India. For more than twenty years it was excavated year by year under the direction of Sir John Marshall and his colleagues and successors in the Archaeological Survey of India. Sir John's monograph is now awaited, and, until its publication, anything written about the archaeology of Taxila is necessarily provisional.

The present report arises from special circumstances. In 1944 the Archaeological Survey of India for the first time undertook the field-training of university students on an extensive and systematic basis (see Ancient India, *no. 1, 1946, pp. 1-2), and Taxila was chosen as the venue by reason of the known richness of its sites and its accumulated amenities, including an excellent museum. The bulk of the training was concentrated upon the Bhīr Mound, the earliest Taxila, in the hope of throwing a much-needed light upon the earliest phase of Indian history. A report on this work will be issued in due course. A subsidiary excavation, consisting of single trench, was carried out at Sirkap to illustrate problems and methods of a different kind. The results are here recorded by the principal supervisor, the Superintendent then in charge of the Excavations Branch of the Survey.*

CONTENTS

1. INTRODUCTION

THE ruins of Sirkap, 22 miles north of Rawalpindi (Punjab), represent the second city of Taxila, one of the most important ancient cities in north-western India, both politically and as a seat of learning. They lie between the western spur of the Hathiāl range and the eastern bank of the Tamrā Nālā, a small stream which separates it from Bhīr Mound, the earlier site of Taxila, supposed to have been deserted in the second century B.C. after an existence of about three centuries.[1] Apart from records of spoliation and treasure-hunting, the first account of Sirkap, together with other city-sites, *stūpas* and monastic establishments near by, is that by Cunningham, who correctly identified the ruins as those of the ancient Takshaśilā or Taxila of the classical writers,[2] though his identification of individual localities is now known to have been wrong.

Subsequent explorations at Sirkap, begun by Sir John Marshall in 1912 and continued for about twenty years, brought to light the remains of an extensive and well-planned city within a fortification of rubble masonry with a perimeter of about 6,000 yards and a thickness varying from 15 to 21½ feet. While the major portion of the city comprising the fortified area is on the valley-plain, a part of the Hathiāl range is included within the southern portion of the city. The northern and eastern walls of the fortification, the southern half of the latter running uphill to enclose the hilly tract (pl. III), are straight. The southern and western walls, the former following the contour of the hills and the latter the course of the Tamrā Nālā, are irregular.[3] The northern wall, the outer face of which has been partly cleared, contains a main gate. A minor water-gate was identified in the southern wall in 1945.

Projecting bastions occur at frequent but irregular intervals. Most of them are square on plan, but at the angles of the wall they assume an unusual pentagonal shape, completely revealed at the north-east corner in 1945 (below, p. 48).

Previous examination of the deeper levels inside the western half of the northern city-wall exposed six periods of occupation, of which the lowest two have been ascribed to the Indo-Greeks of the second century B.C. It has been surmised that during this period the fortifications were of mud and embraced a larger area, extending northwards to the earthen ridge locally known as Kachchā Koṭ, which is supposed to represent the remnants of these fortifications.[4] The third and fourth cities have been ascribed to the times of the Śakas, beginning with Azes I (*c.* 57 B.C.) to whom has also been ascribed the stone-fortification, which left a northern portion of the older city out of its limits. The fifth city, to which the major part of the excavated city belongs, has been thought to belong to Indo-Parthian times (first century A.D.) and the sixth to the time of the Early Kushans, under whom the city was moved to a new site (Sirsukh) further north.[5]

It has been suggested that the whole or a part of the southern portion of Sirkap constituted an acropolis, separated from the rest of the city by an inner line of fortification,

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[1] For the situation and general history of Taxila, see J. Marshall in *Archaeological Survey of India, Annual Report*, 1912-13 (Calcutta, 1916), pp. 1ff.; Marshall, *A Guide to Taxila* (3rd ed., Delhi, 1936), pp. 1ff.

[2] A. Cunningham, *Archaeological Survey of India Report*, II (Simla, 1871), 111ff.

[3] Sirkap was re-surveyed in 1945 and opportunity is taken here to publish the revised plan (pl. XXII).

[4] Recent scratching at the northern foot of Kachchā Koṭ has, however, revealed the existence of a brick-and-stone wall, which may go against its having been a mud-rampart.

[5] See *Archaeological Survey of India, Annual Report*, 1928-29 (Calcutta, 1933), p. 62; *Guide to Taxila*, pp. 78 and 98-99. Marshall evidently regards Azes as a Śaka, whereas the more probable view is that he was a Parthian (Sten Konow, *Corpus Inscriptionum Indicarum*, II, pt. I (Calcutta, 1929), p. xxxix). That, however, does not modify Marshall's chronology of the city-wall. [For a further note on the chronology of Sirkap, see below, p. 83.]

carried along the northern base of the hills.[1] Recent (1945) search has identified actual remains of the western part of this cross-wall (pls. VI A and VII B). At one point it is based

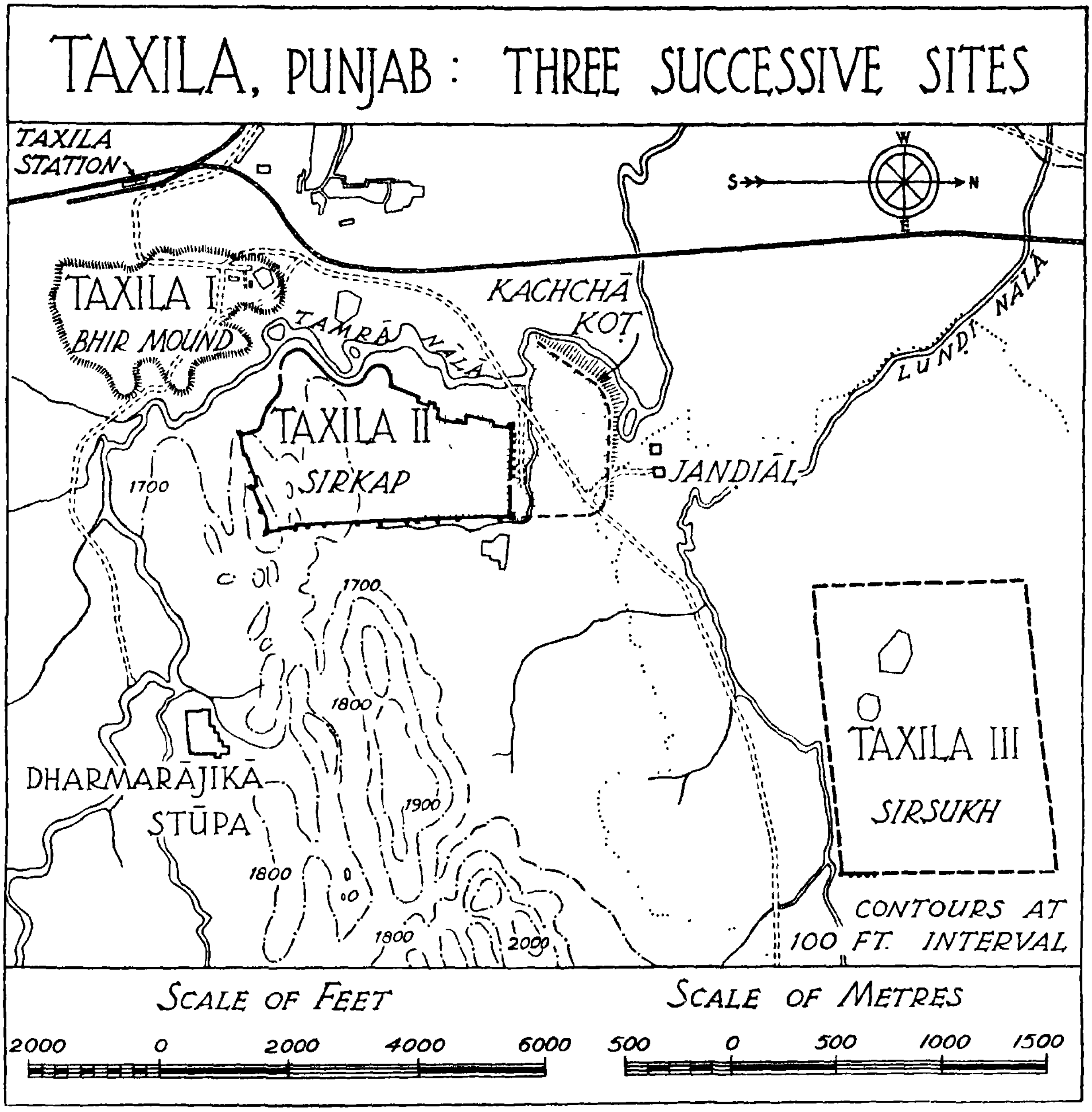


FIG. 1. *The three successive sites of Taxila, showing (stippled) the approximate earlier position of the second city (Sirkap).* *See p. 83.*

upon a stone-revetted glacis and at another on a high stepped foundation. The point of its junction with the western city-wall is broken by deep gulleys cut by the Tamrā Nālā; and modern quarrying makes it uncertain whether the wall ever extended up to the main

[1] *Archaeological Survey of India, Annual Report*, 1912-13, p. 4.

eastern city-wall or, as is perhaps more probable, only fenced off the south-western corner of the city from the rest (see plan, pl. XXII).

The hills enclosed in the south-eastern corner of the city bear on their crest the remains of a number of Buddhist establishments. One of them is the well-known *stūpa* and monastery named after Kuṇāla, the son of Aśoka[1]; the second, consisting of a small monastery only, is known as Gahi, after the local name of the area. Both of them were fully exposed in the earlier excavations. Recent surface-scratching has brought to light a third monastery, situated on the final ridge south of Gahi, immediately within the line of the southern city-wall. It has the usual plan of a central court-yard, flanked on its four sides by verandahs and rows of cells, together with a hall of assembly. Loose on the site are fragments of small-scale *stūpa*-railing.

In the northern half of the city, Marshall's excavations brought to light extensive remains of buildings, generally residential but sometimes religious, flanking both sides of a straight central street originating at the north gate of the city, and divided into 'islands' by narrow cross-streets.[2] The regular layout, in contrast with the irregular plan of the preceding city on Bhīr Mound, may be described as Hellenistic rather than Indian, and is doubtless due to the classical element in the Scytho-Parthian civilization, although India had in fact produced a comparably symmetrical civic plan two thousand years previously at Mohenjo-daro. Of particular interest among the excavated buildings was a 'palace', 'distinguished from its fellows by its size and the relative massiveness of its construction',[3] dating, according to Marshall, from the first century A.D. As, however, only the upper levels in the palace area were excavated by Marshall, the date assigned to it by him can be applied only to its later phases.

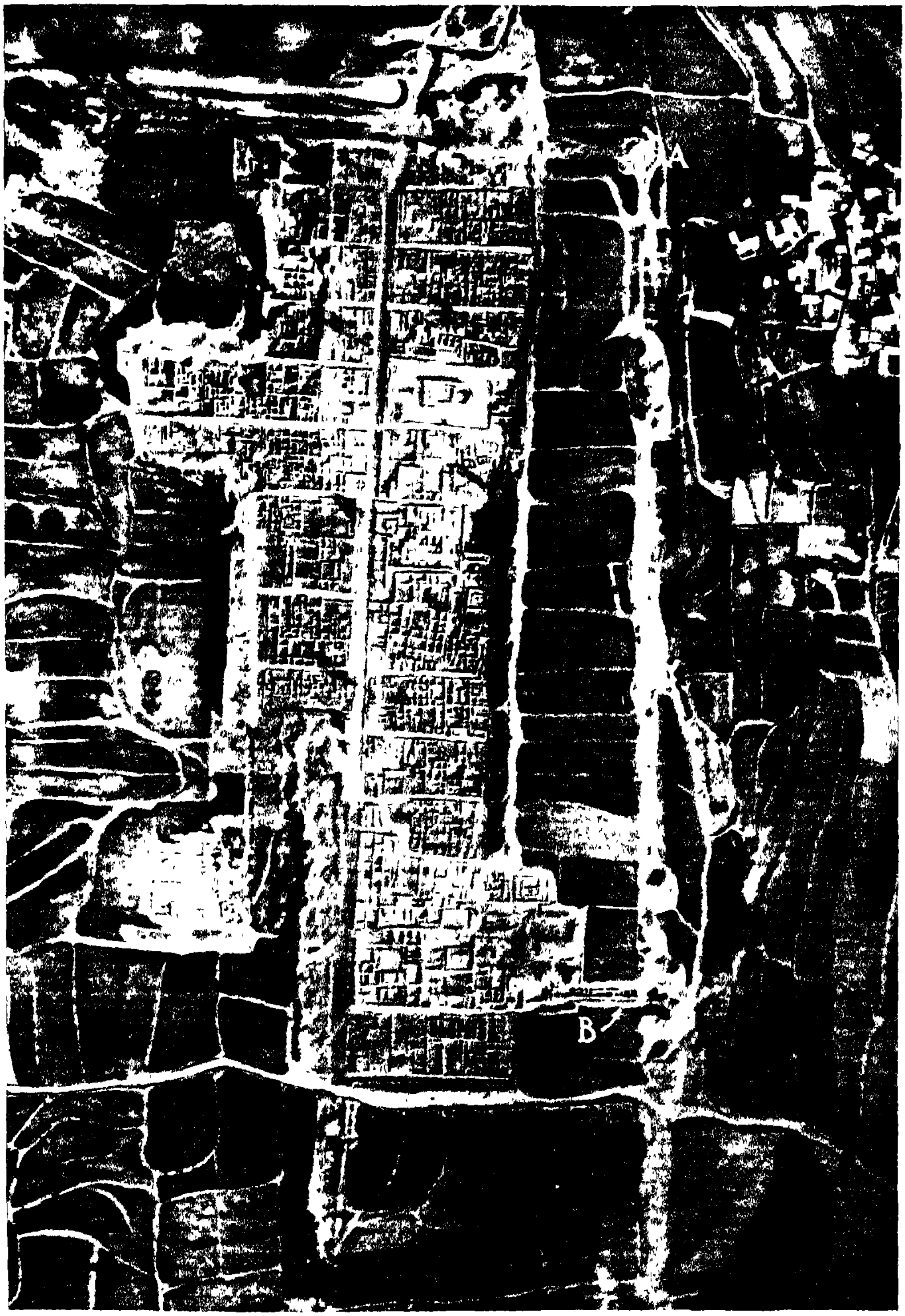
Previous excavations, extensive and important though they were, left many points regarding the stone-fortification unsettled. What, for instance, was its stratigraphic relation to dated inside structures such as the 'palace'? or to the earlier phases of the site? Was there any earlier mud-rampart below the stone-wall such as would confirm Marshall's conjecture in regard to the Kachchā Koṭ? It was also felt that the absolute dating of the fortification required further confirmation. With a view to a partial solution of these problems, an east-to-west trench, 18 feet wide and upwards of 200 feet long, connecting the back (eastern) wall of the palace with a portion of the eastern city-wall, was dug in 1944-5. Near the palace the trench was widened to expose the south-eastern corner of the palace-building and the drains running through the street to its south (the Thirteenth Street of the previous excavations) and the lane to its east. Besides this, the area round the bastion at the north-eastern corner of the city-wall was cleared, and the plan of the corner fully revealed.

Within the width of the main trench the city-wall was a homogeneous structure, without evidence of ancient restoration or of any preceding rampart (pl. V). It belonged to the period of the earliest structural activity on the site and, like other walls of the earliest phase of occupation, was separated from the natural soil only by a thin deposit of culture-débris, never more than 1 foot thick except where the natural soil had been disturbed by pre-structural pits. This shows that (1) the land on which the walled city was laid out had here been submitted to very slight previous occupation, and (2) the city-wall and the earliest structures in the trench, including the earliest phase of the eastern and southern walls of the palace, were approximately contemporary.

Former excavations at Sirkap had brought to light beneath the northern city-wall a few fragmentary earlier structures,[4] which were ascribed to the Indo-Greek period, when

[1] *Guide to Taxila*, pp. 71ff. [2] Ibid., pl. XI. [3] Ibid., p. 80 and pl. XII.

[4] *Archaeological Survey of India, Annual Report*, 1923-24, p. 65.



R.I.A F. photograph

Air-view of Taxila II (Sirkap), 1945, showing: A, north-east corner-bastion; B, trench of 1944-5



Taxila II (Sirkap), the lower city from the Kuṇāla monastery



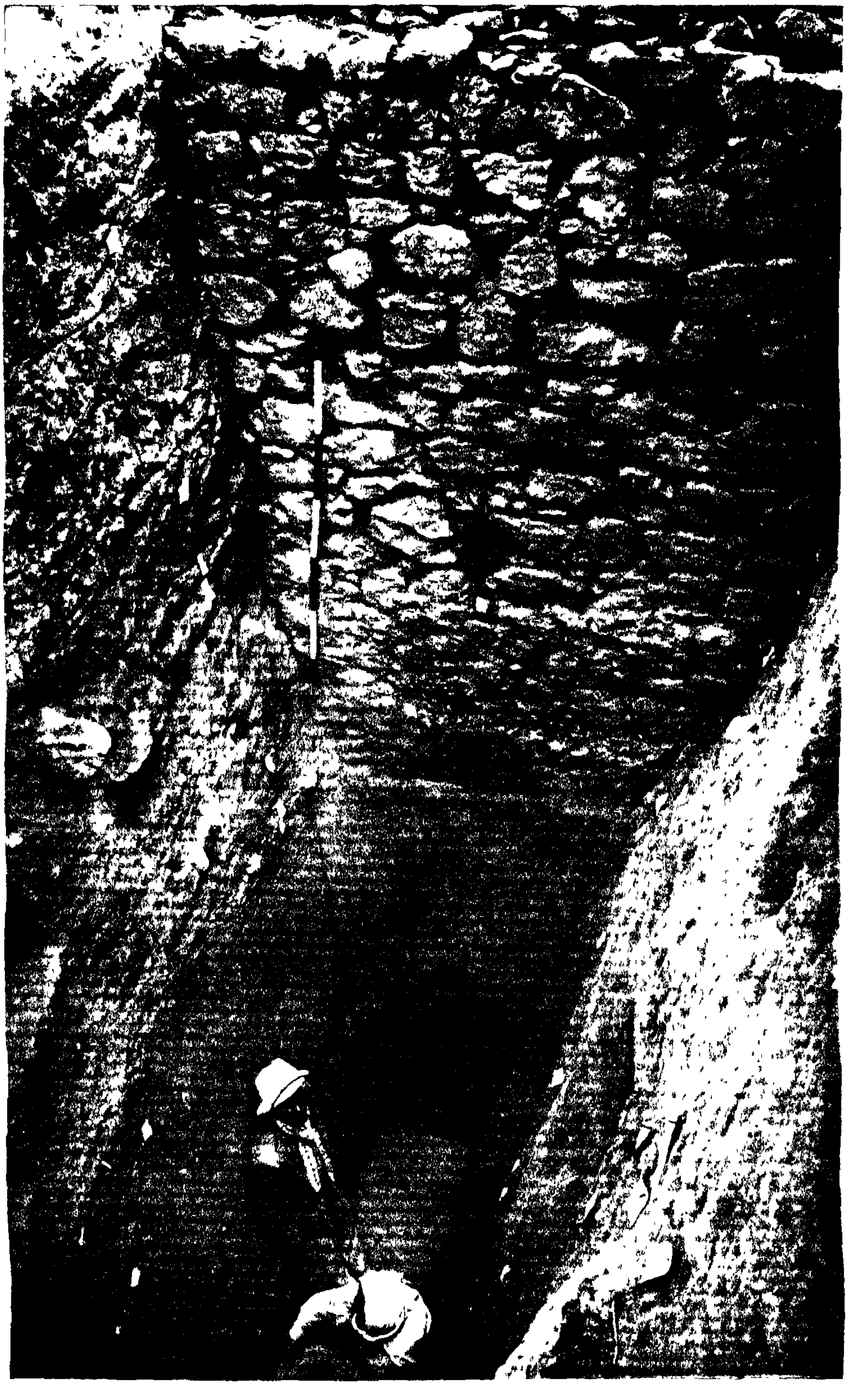
Taxila II (Sirkap): eastern city-wall climbing the Hathiāl ridge

PLATE IV

To face plate V



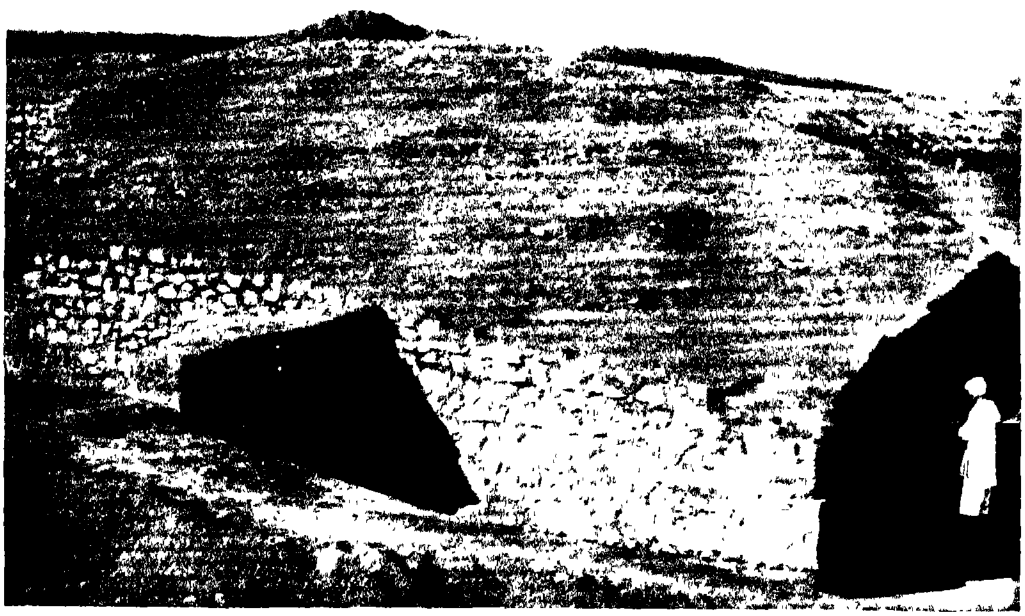
The trench of 1944-45, looking east



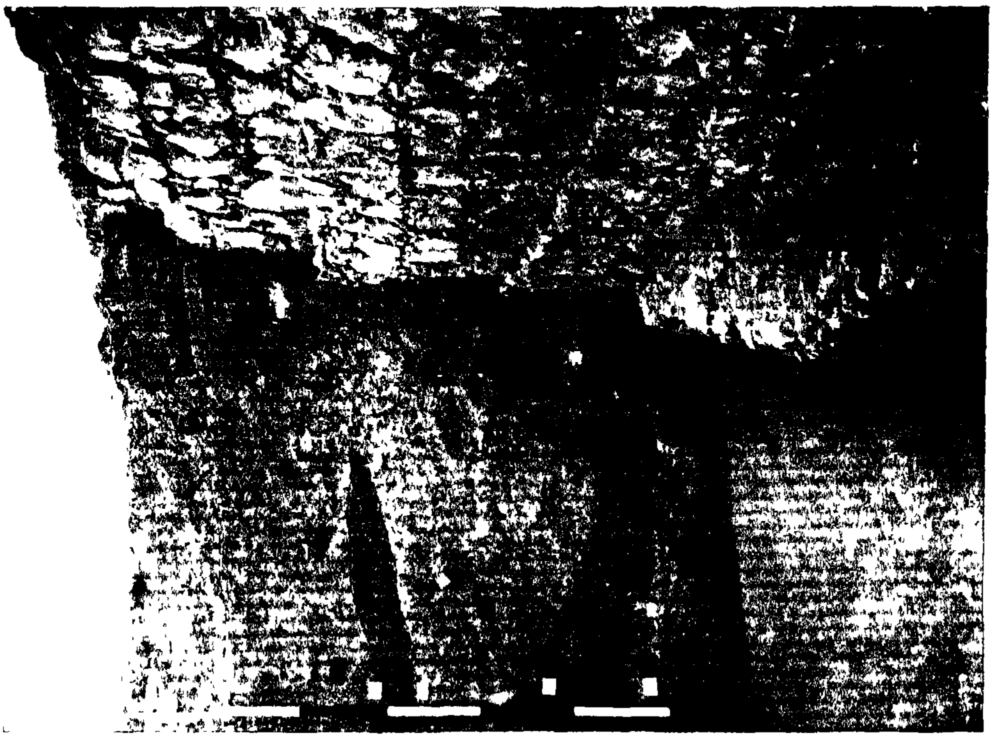
City-wall of Taxila II (Sirkap), inner face, in the trench of 1944-5. Scale of feet



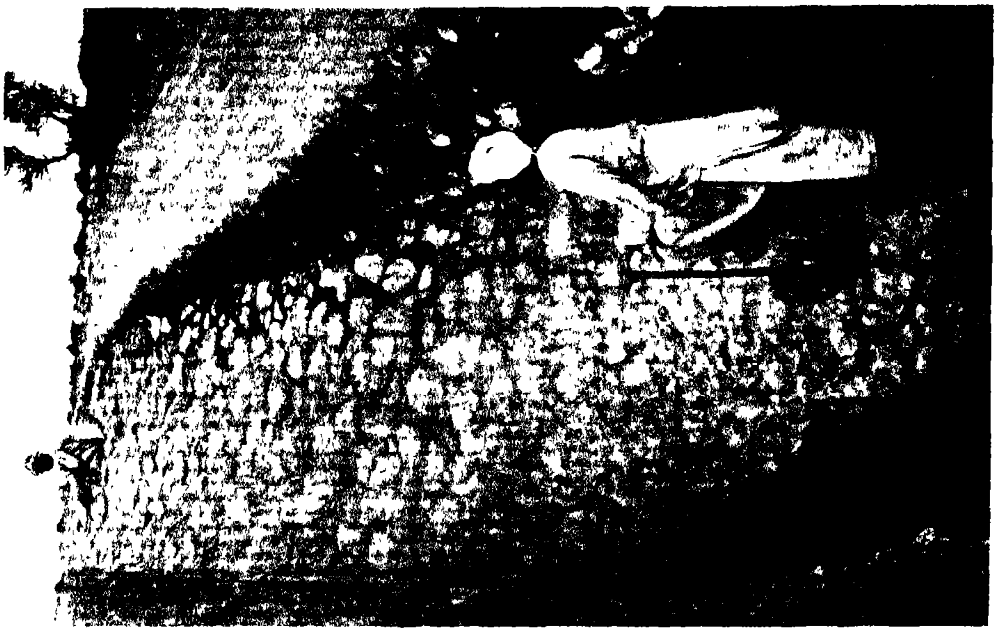
A. *Stepped foundation of 'citadel-wall', 1944-5*



B. *North-east corner-bastion, 1944-5, from the north-east*



A. *Stepped foundation of the north-east corner-bastion,* 1944-5. Scale of feet



B. *Stone-revetted glacis of 'citadel-wall', 1944-5*

the northern limits of the city may have extended up to Kachchā Koṭ (above, p. 42). On the evidence of the present trench it is unlikely that these pre-fortification structures extended to what later on became the southern portion of the fortified city. The contemporaneity of the city-wall with the earliest structures in the trench, together with the absence of an underlying mud-rampart, tends to show that at least the southern part of the city was laid out from the beginning on a single concerted plan within the present framework.

2. CHRONOLOGY

The evidence of coin-finds is helpful in settling the date of the fortification and of the four successive phases of structures (numbered I to IV from bottom to top) found in the trench, the earliest of which was contemporary with the fortification. The pre-structural layers yielded only Local Taxila coins of various types, which are by themselves undatable, being found in all levels of Bhīr Mound and Sirkap in fairly large numbers. The two earliest datable coins found in the present excavation are those of Azes, found respectively in a pit (no. 6, below, p. 47) and in a stratum underlying a wall (W2) of Phase II; and therefore more or less contemporary with Phase I and the city-wall. The initial date of Azes is usually accepted as 57 B.C., and it would be in consonance with his importance if the defence was erected during his reign. Marshall's similar dating of the city-wall is thus supported.

The terminal date of the site is more uncertain. The time required for the building and decay of four structural phases on the site is largely a matter of guesswork. Significant, however, is the find of a coin of Kujūla Kadphises (*c.* A.D. 40) in a pit (no. 10, below, p. 47) subsequent to the structures of Phase II but earlier than those of Phase III, and of a coin of Huvishka in a layer contemporary with sub-period 1 of Phase IV; which show that Phase III is certainly later than Kujūla Kadphises and the initial period of Phase IV is at least contemporary with Huvishka,[1] a successor of Kanishka, whose inscriptions are dated in years ranging from 33 to 60 of the Kushan era. Sub-period 2 of Phase IV, which marks the last period of the occupation on the site, is not likely to have extended over a long period, and the end of Sirkap need not therefore be ascribed to a date much later than the time of Huvishka. A precise date being out of the question in the absence of a solid foundation for Kushan chronology,[2] a date between A.D. 150 and 200 may be proposed as an approximation. Sirsukh, the third city of Taxila, may have been founded a little later than has been usually supposed,[3] unless there was an overlap between the occupations of Sirkap and Sirsukh, a point which, however, still remains to be established.

Within these limits the following rough dates may be proposed for the structural phases of the city as revealed in the present excavations:—

Phase I: mid first century B.C. to the beginning of the Christian era.
,, II: beginning of the Christian era to A.D. 50.
,, III: A.D. 50 to early second century A.D.
,, IV: second century A.D.

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[1] The previous view was that Sirkap remained in occupation till the reign of Wima Kadphises; J. Marshall in *Archaeological Survey of India, Annual Report*, 1912-13, p. 23. Elsewhere, ibid., 1927-28, p. 60, the uppermost structures are ascribed to the Early Kushans before Kanishka.

[2] The latest estimate for the beginning of Kanishka's reign is A.D. 144—see R. Ghirshman in *Journal Asiatique*, CCXXXIV (Paris, 1947), 59ff.

[3] It has been surmised that Sirsukh was founded by Kanishka; J. Marshall in *Archaeological Survey of India, Annual Report*, 1912-13, p. 4; ibid., 1915-16, p. 19.

The numismatic evidence in the digging round the north-east bastion was unsatisfactory. Outside the city-wall, two Local Taxila coins were found in the pre-fortification deposits; all other coins, whether outside or inside the fortified area, dated from after the erection of the city-wall and were either of the Local Taxila or of punch-marked type.

3. THE STRUCTURES

A. The Trench

The trench connecting the city-wall and the eastern wall of the palace (pl. IV) revealed a network of walls and drains belonging broadly to four structural phases (pls. VIII and IX). In the eastern half of the trench, however, there was slight evidence of occupation subsequent to the last phase of the western half. It is convenient therefore to divide the last phase (Phase IV) into two sub-periods, 1 and 2. The narrow trench did not yield any complete plan of the buildings represented by the walls of any phase.

Though no wall of the earliest phase except the city-wall and the southern and the eastern walls of the palace remained in use till the ultimate or even the penultimate phase, there is evidence of the intermittent re-use of earlier walls by later builders. Thus, though each phase had its individual plan, habitation on the site was continuous and there was no wholesale abandonment after any phase.

The city-wall.—The city-wall at this place was 21 feet 4 inches thick; its inner face stood to a height of 9½ feet, and the outer to a height of 2½ feet. That it was not built on absolutely level ground was clear from the fact that the bottom of its outer face was 5 inches higher than the inner, and that, while the former was cut into the natural soil itself, the latter was separated from it by a deposit 5 inches thick. In both cases, however, the underground foundation of the wall was 9 inches deep. The wall was a homogeneous structure, being built of rubble with small chips of stone inserted in the interstices (pl. V).

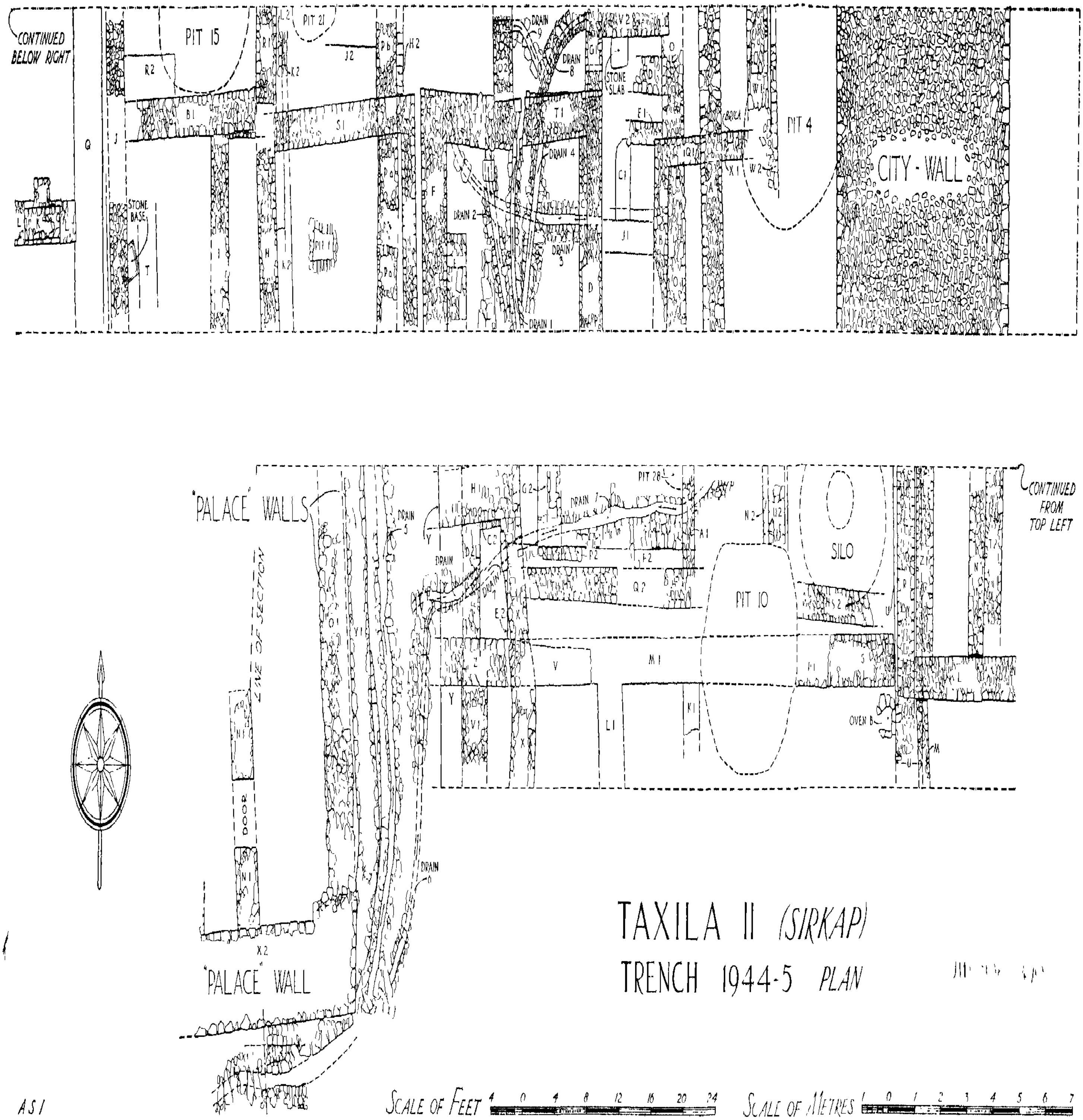
Phase I.—The structures of Phase I, proceeding westwards from the city-wall, are marked on the plan (pl. VIII) as J1, C1, H2, J2, K2, R2, T, Q, U, S, P1, N2, K1, M1, F2, L1, G2, V1, U1, C2, D2, Y1 and X2 (the last two being respectively the eastern and southern compound walls of the palace). Of these, S, P1 and M1 formed one wall, 48 feet long, running along the centre of the trench, with N2, K1 and L1 forming cross-walls with it. Wall U, running across the trench seems to have been the eastern terminal wall of the building of which these walls formed part. The space enclosed by Walls S, U and N2 was floored with six successive layers of *kanjūr*, sometimes alternating with clay. The indications are that a substantial building stood at this place.

Against the western face of Wall T, a square pillar-base of sandstone was exposed. Though it was clearly not in position, it may be regarded as contemporary with the wall.

Both the southern and eastern walls of the palace had their origin in this phase, though whether or not the building that they enclosed was a 'palace' from the outset cannot be decided without an examination of the deeper levels within the palace itself.

Phase II.—In this phase, Walls Q, S, U, L1 and P1 of Phase I remained in use, and Walls F2, Y, Y1 and X2 (the last two being walls of the palace) were restored. The new walls of the phase were W2, E1, D1, P, R1, H, J, U2, V, W, Z, E2 and N1 (the last one within the palace). Of these V and Z (forming one wall badly twisted at its eastern end) were erected to replace the earlier Wall M1, and U2 was substituted for N2. The space to the east and west of N2 continued to be floored with *kanjūr*, so that the nature of the large earlier building remained unaltered in this phase.

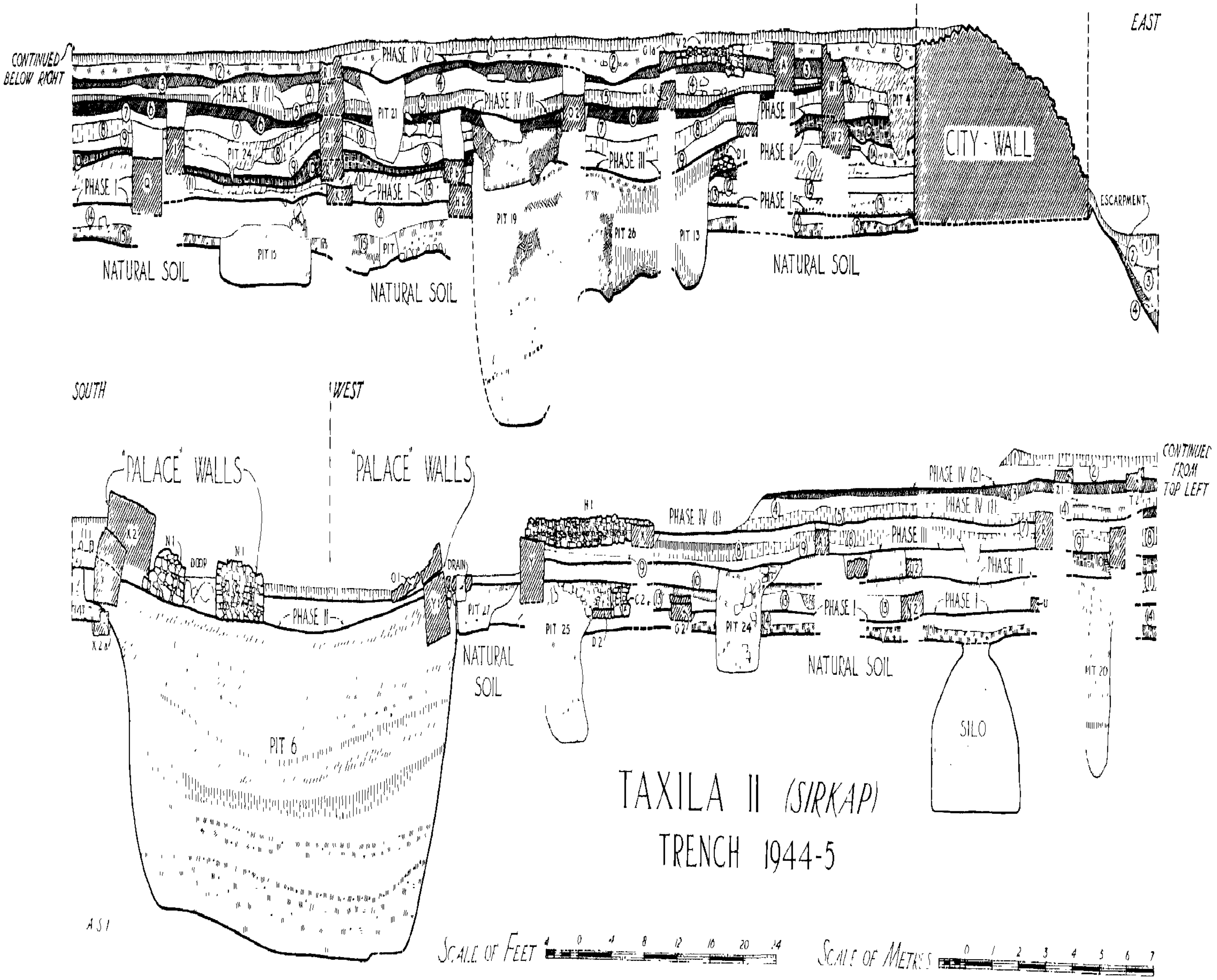
Phase III.—In this phase also some earlier walls, J, V, W and Z and the restored portion of F2, continued in use, while the ruined tops of Walls H, P, Y, R1, Y1, and X2 were heightened by new walls almost in the same plumb as the earlier ones. Walls W1, O, D, T1, F, S1, L, N, R, S2, A1, E2, F1 and O1 (the last one within the palace) were independent erections of this phase. The southern portion of Wall H had completely disappeared, so that the restored wall of this phase was built upon a foundation of several courses of roughly-laid rubble alternating with layers of clay. The restored portion contained in both faces three vertical chases to receive wooden uprights presumably to hold the roof and perhaps to carry paneling. The device is found in some other walls at Sirkap.



CONTINUED BELOW RIGHT
PIT 15
PIT 21
PIT 4
CITY - WALL
STONE BASE
STONE SLAB
DRAIN 1
DRAIN 2
DRAIN 3
DRAIN 4
DRAIN 8
DRAIN 9
"PALACE" WALLS
LINE OF SECTION
DOOR
"PALACE" WALL
DRAIN 5
DRAIN 6
DRAIN 10
PIT 28
PIT 10
SILO
OVEN B
CONTINUED FROM TOP LEFT
TAXILA II (SIRKAP)
TRENCH 1944-5 PLAN
SCALE OF FEET 4 0 4 8 12 16 20 24
SCALE OF METRES 1 0 1 2 3 4 5 6 7
ASI

To follow plate VIII

PLATE IX



Some drains of this phase deserve mention. Drain 5, situated in the lane between Wall Y1, the eastern wall of the palace, and the eastern block of buildings, ran parallel to Wall Y1, and then, turning west, to Wall X2, the southern palace-wall. Drain 7, originating somewhere to the north-east of Wall A1, had a long and winding course for about 40 feet and reached the same lane through an opening in Wall Y. In the lane it proceeded southwards (as Drain 6) alongside Drain 5, and, taking a bend to the west, must ultimately have met Drain 5 at an uncertain point. In the eastern part of the trench, Drain 3, coming from the east through an opening in Wall D, finally discharged into what seems to have been an open space or lane to the north of Wall T1, through a gap in the same wall.

Phase IV: Sub-period 1.—The new walls of this sub-period were X1, A, Q1, B, G1, O2, E, B1, I, K, M, Q2, P2, X, H1 and I1. Walls F, H, J and W1 of Phase III were re-utilized, and T, S1, R1, F1 and X2 were restored. Wall B formed an outer corner of the building with Q1. Some patches of *kanjūr* and pebble-floor to the north of Walls T1 and S1 belonged to this sub-period.

To the north of Wall T1, two drains (Drains 8 and 9), coming from the east and west respectively, the latter through a hole in Wall O2, met each other at the edge of Wall T1 and then proceeded to the south (as Drain 4) through a hole in the wall. Just beyond the southern edge of the trench it seems to have been joined by another drain (Drain 2) and to have discharged finally into a street outside the excavated area (the continuation of the Thirteenth Street of the previous excavations)

Unlike the southern wall of the palace (Wall X2), which underwent restoration in this phase as well, the eastern wall of the palace (Wall Y1) was rebuilt only twice (in Phases II and III) after its initial erection in Phase I, but there is little doubt that it was in use in the last phase as well, so that these two were the only walls (besides the city-wall) which had stood in their original alignment from the very beginning of the city.

Phase IV Sub-period 2—To this sub-period, the last stage of occupation in this part of Sirkap, belong a few walls in the eastern part of the trench, namely Walls N2, C, G, T2 and Z1 Walls A, F, H and M of the earlier sub-period continued in use, and the tops of Walls W1, T1, S1, B1 and R1 were restored. These restored walls and the new walls were bonded with each other, e g Walls G1 with V2, and S1 with B1

The only drain of this period was Drain 1, which began through a gap in Wall T1, ran to the south over Drains 2 and 4 and probably discharged into the same street as the latter two on a higher level.

The extensive use of older walls and the restoration of others show that this sub-period was not an isolated episode in the life of the city. Lack of stratigraphic evidence (due to the surface having been disturbed by previous excavation) forbids any conclusion in regard to the condition of the western half of the trench in this sub-period It may be guessed, however, that as in the eastern portion some older walls were similarly utilized or restored.

Pits.—A large number of pits, belonging to all periods of the occupation, were detected within the excavated area. While most of them were unlined and irregularly shaped, two (nos. 1 and 8) were roughly lined with rubble, but all, with one exception (no. 17) noted below, were of the nature of refuse-pits. A few of them, important on account of their stratigraphic position or of the finds they yielded, are mentioned below.

Pits 12 and 15 (which together may have constituted one pit), 17, 20, 21, 9, 11 and 14 were cut into pre-structural layers. Of these, Pit 17 was remarkable for its shape. Its circular orifice was only 3 feet in diameter; it had a hemispherical or half-elliptical section and was throughout circular on plan, with a diameter of 11 feet at the bottom. Its contents were loose earth, ashes and charcoal flakes. To judge from its shape, it was designed as an underground grain silo.

Pits 5 and 6 belonged to a period between Phases I and II Pit 5, cylindrical in shape, cut the northern extremity of Wall U1 of Phase I. Pit 6 similarly cut a portion of the earliest phase of Wall X2 and touched that of Wall Y1, respectively the eastern and southern walls of the palace The second phase of Wall X2 and Wall N1, a wall within the palace, overlay and sealed it. It was a huge pit remarkable both for its horizontal extent and its depth; as excavated, it measured 24 feet north-to-south and 15 feet east-to-west and reached a maximum depth of 17 feet. While its lower portion contained only layers of clay its upper portion was filled with ashes, greenish mouldy soil and clay.

Pit 10, together with Pit 3 which formed the northern portion of the former and was characterized by a thicker deposit of ashes, was later than Phase II but earlier than Phase III, it cut Walls P1, M1 and N2 of Phase I and U2 of Phase II. Roughly circular at the top with a maximum diameter of 14 feet, below a depth of 13 feet it assumed the shape of a narrow circular soak-pit with a diameter of 3 feet, its bottom was not reached. It yielded a coin of Kujūla Kadphises.

Pits 1 and 8 of Phase III were the only two lined pits on the site. Pit 1 was a rough structure 2 feet square built of rubble three to four courses deep, resting on indifferently-baked bricks,[1] mostly found in a cracked and broken condition. A special interest attaches to this pit as it yielded a carved ivory comb (below, p. 79). Unlike Pit 1, Pit 8 was roughly circular and was lined only at its lip with single-course rubble.

The post-structural Pit 4 near the city-wall yielded a silver coin of Azes (mid first century B.C.). The pit cut Walls W2 of Phase II, W1 of Phase III and X1 of Phase IV.

While the stratigraphic positions of all the pits were fairly clear, Pit 19, an enormous pit which at places cut the natural soil to a depth of 10 feet, could not be ascribed to any definite period. The area occupied by the pit had been cut and re-cut many times, with the result that the limits of the sub-pits were often difficult to detect and the section was confused. Pits 26 and 13 formed the eastern portion of this composite pit.

B. THE NORTH-EAST BASTION

As stated above (p. 42), surface-indications showed that the corner-bastions of the city-wall were of pentagonal plan. For the further investigation of this unusual type, the north-eastern corner of the fortified area was uncovered (pl. VI B and fig. 2). The city-wall was here 20 feet thick and 14 feet high, and contained evidence of repairs near its top. The sides of the solid structure of the bastion were each 36 feet long, the eastern wall being carried downwards in conformity with the sloping ground by means of four basal offsets (pl. VII A).

4. THE POTTERY[2]

The pottery from Sirkap is highly evolved and sophisticated, as is indicated by the quality and finish of the wares, the large variety of shapes and the frequent employment of utilitarian devices such as the pinched lip, handle, spout, etc. The majority of types is specialized, simple generalized shapes being few in number. Unlike the pottery of the earliest Taxila (Bhīr Mound), there is a marked predilection at Sirkap for a stable base, either flat or discoid, or in the form of a ring or pedestal.

With the exception of the large storage jars (Type 76) and a few freaks, the entire range of this pottery is wheel-turned and is made of a well-levigated clay of fine or medium, rarely coarse, grain. The normal dégraissants are sand, lime, grits and wheat-husk. As a rule the pots are fired in oxidizing conditions and burned from dull red or greyish red to pink or light red in colour. Grey wares are extremely rare and are confined to Types 1 and 5 and a few miscellaneous shapes. A large majority of types is treated with a red ochreous slip which varies from pink through light or bright red to dark red in shade.

Decorated pottery from Sirkap forms a small percentage, the decoration consisting of painted, stamped, incised, finger-tip and mat-impressed patterns. The painted decoration is normally in black on a red-slipped ground, the black colouring-agent being an iron compound, probably magnetite or black oxide of iron, which has been applied in a finely divided state with a brush before firing. The painted designs comprise triangles (fig. 3, 1*c*, 1*d*, 1*n* and 2*a*) (hatched, cross-hatched or filled solid), chequers (fig. 15, XXII, XXV, XXVIII and XXIX), loops or festoons (fig. 15, XXI, XXII, XXVIII and XXX), wavy lines (fig. 15, XXII), parallel uprights (fig. 3, 1*c*), conventional flowers (fig. 12, 56*a*), cocks or peacocks (fig. 15, XXVII), etc. Ornament punched with a positive stamp in a sunk incuse comes next in frequency and shows designs as conch-shell (fig. 17, XLII), *svastika* (fig. 17, XLI), pendants (fig. 16, XXXVII), circlets (fig. 16, XXXVII), leaf (fig. 17, XL), sigma (fig. 16, XXXVI and XXXIX), circlet combined with hook (fig. 16, XXXIII, XXXIV and XXXVI), and a pattern consisting of a circlet and three parallel lines surmounted by an

[1] The dimension of the bricks were: 18″ × 14″ × 2″.

[2] This section has been contributed by Mr. Krishna Deva.

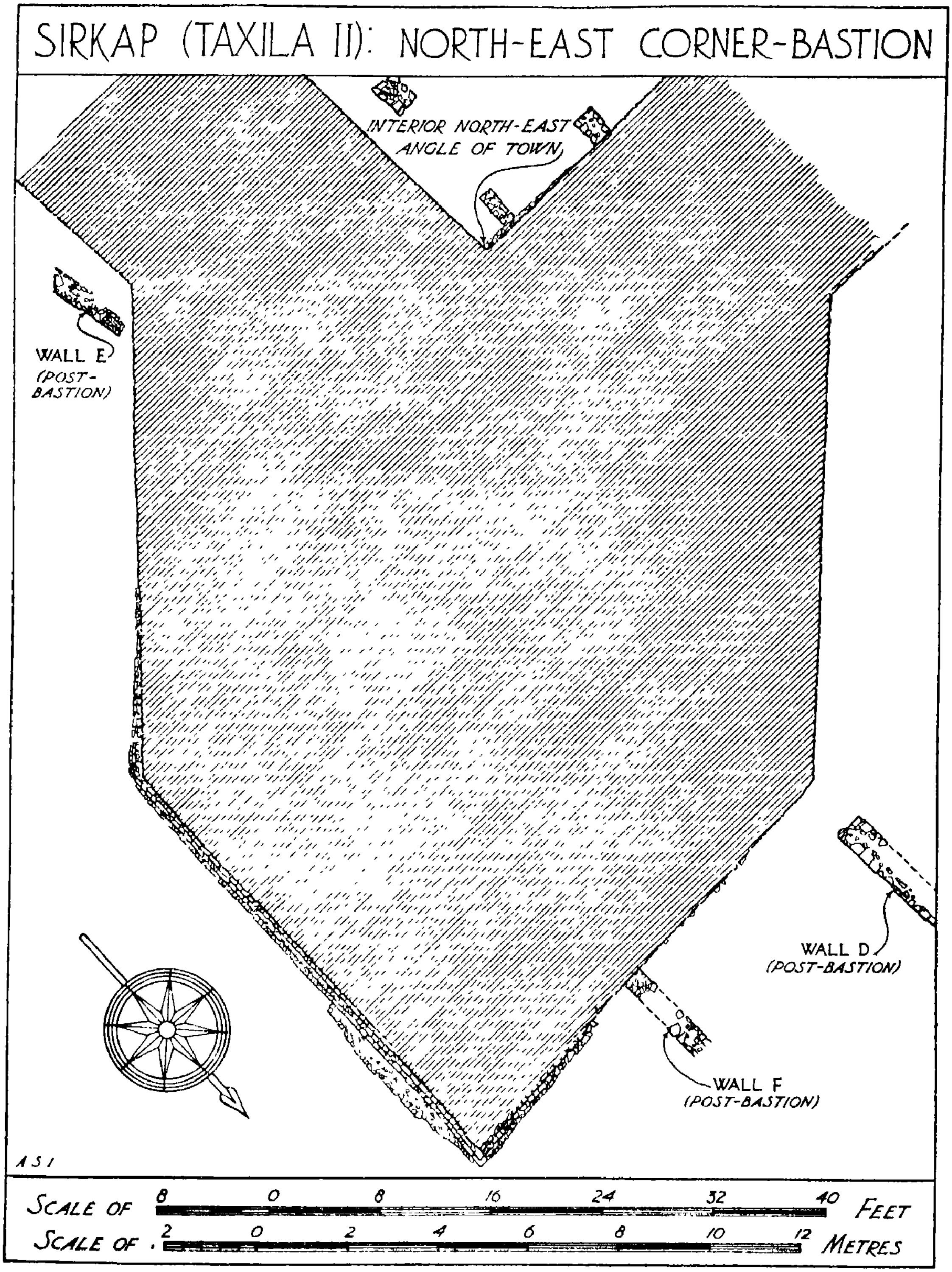

SIRKAP (TAXILA II): NORTH-EAST CORNER-BASTION
INTERIOR NORTH-EAST
ANGLE OF TOWN
WALL E
(POST-
BASTION)
WALL D
(POST-BASTION)
WALL F
(POST-BASTION)
A S I
SCALE OF 8 0 8 16 24 32 40 FEET
SCALE OF 2 0 2 4 6 8 10 12 METRES

FIG. 2

arrow-head (fig. 17, XLV). Stamped decoration in relief occurs on two sherds, each bearing a rayed-disk pattern (fig. 17, XLVI); while a small mould-made water-bottle is elaborately decorated with rows of cowrie-shells, birds, beaded arcading and triangles (fig. 17, XLVIII). Incised ornament comprising crescent (fig. 17, XLIX), wavy lines (fig. 18, LI), sigma (fig. 18, L), festoon (fig. 18, LI and LIII) and floral (fig. 18, LII) patterns occurs on half-a-dozen sherds, while finger-tip decoration and designs impressed with mats and baskets are of more frequent occurrence.

The pottery and other finds from the 1944-5 excavation may be divided into the following chronological groups:—

(1) *Pre-structural*, i.e. finds from the layers antedating the earliest structure (first half of the first century B.C.);

(2) *Phase I*, i.e. finds contemporary with the earliest building-phase (second half of the first century B.C.);

(3) *Phase II*, i.e. finds contemporary with the second building-phase (first half of the first century A.D.);

(4) *Phase III*, i.e. finds from layers belonging to the penultimate building-phase (second half of the first century A.D.);

(5) *Phase IV*, i.e. finds contemporary with the latest building-operations (second century A.D.); and

(6) *Post-structural*, i.e. finds from the upper layers sealing the remains of the last building-phase (later than the second century A.D.).

TYPES 1–77 (figs. 3–14)

Type 1 is a bowl with a flaring rim, a pronounced, bluntly carinated, shoulder and a small flat base. It is a light-red ware of fine or medium fabric and is normally without slip but sometimes has a pink to dark-red slip internally and externally. A small percentage of the type and of all its variants save 1*i*–*k* is decorated with black paint on the interior of the rim, the usual design being a hatched or cross-hatched triangle alternating with another simple pattern, such as parallel uprights (fig. 3, 1*c*). The specimens illustrating variants 1*m*–*o* bear peculiar painted ornaments, the first two having one or two solid triangles flanked by parallel lines and the last showing a slightly curved upright alternating with parallel lines and dots. With the exception of 1*d* which is confined to Phase I, all the variants occur fairly frequently in all periods of the occupation.

Type 2 is a bowl with a shape generally analogous to Type 1 but with a broader and more flaring rim. It is of a light-red ware of fine or medium fabric and is usually treated with red slip both inside and out. Though less common than Type 1, it occurs throughout the occupation of the site, with the exception of 2*e*–*g* which are peculiar to Pit 6 and are attributable to a period between Phases I and II, while 2*f* is a solitary specimen from the pre-structural period. Some specimens of variant 2*a* bear painted decoration of a design identical with Type 1.

Type 3 is a bluntly carinated bowl distinguished by a flat rim, grooved neck and pedestal-base. But for the base it is akin to Type 1*l* in shape. It is of a light-red ware of medium fabric, sometimes with a grey core, and is treated with red slip both inside and out. It is a highly specialized type and occurs occasionally throughout the occupation of the site, with the exception of 3*f* which is peculiar to Phases I-II. Some specimens of the type and its variants bear painted decoration of a design identical with Types 1-2, but are too fragmentary for illustration.

Type 4 is a simple bowl with a flat base and tapering sides. It is of a dull-red or light-red ware of medium fabric and is normally devoid of slip. It occurs with fair frequency throughout the occupation of the site.

Type 5 is a simple bowl which deviates from Type 4 in having a flanged rim. It is of a dull-red to light-red ware of medium or coarse fabric and is rarely treated with red slip. A few specimens are also of a grey ware. Occasionally its surface is left unsmoothed, showing corrugations produced by the wheel. This is one of the common types of the site, occurring throughout its occupation, and is also found in contemporary strata on other North Indian sites, such as Ahichchhatra,[1] Maholi (Mathurā) and Rājghāṭ (Benares).

[1] *Ancient India*, no. 1 (1946), p. 44, fig. 2, 29.

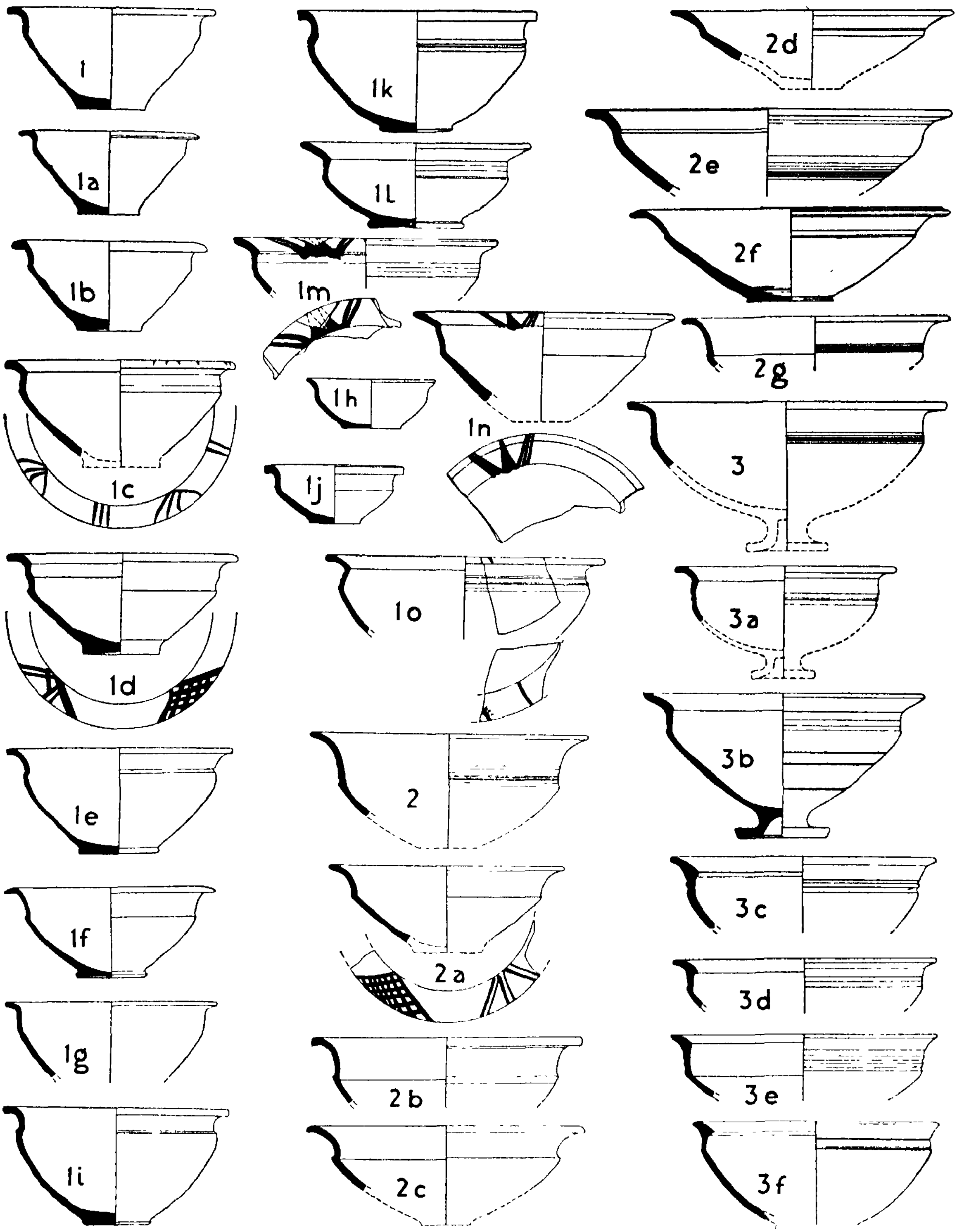


FIG. 3. *Pottery from Sirkap, 1945.* $\frac{1}{4}$

Type 6 is a rimless bowl which is otherwise analogous to Types 4-5. It is of a light-red ware of medium fabric and is normally treated with red slip. This is another common type of the site and occurs through all phases of its occupation.

Type 7 is a rare type of bowl with a flat or slightly concave base and a ledged shoulder. It is of a thin greyish-red or light-red ware of medium fabric and occurs sporadically in Phases I-IV, except for variant *7a* which is rarer and is confined to Phase IV.

Type 8 represents small cup with a flat base and a ledged shoulder, akin to Type 7. It is of a dull-red or light-red ware of medium fabric and is a specialized type confined to Phases I-II. Variants *8a-b* have a groove instead of a ledge.

Type 9 represents a cup or tumbler with a flat base and tall tapering profile. It is of a buff or dull-red ware of medium fabric and is devoid of slip. This is one of the minor types and occurs sporadically from Phase I to the post-structural period. Variant *9a* deviates from the main type in having a flaring rim.

Type 10 is a bowl distinguished by an incurved rim, tapering sides and flat base. It is of a dull-red or light-red ware of medium fabric and is occasionally treated with red slip inside and out. Frequently the corrugations produced by the wheel are left unsmoothed. This type is also found in contemporary strata on other North Indian sites such as Ahichchhatra[1] and Maholi. With the exception of *10k-l*, which come from the north-eastern area and are contemporary with the bastion (second half of first century B.C.), all other variants occur throughout the occupation of the site and are amongst the commonest shapes.

Type 11 is a large bowl with a simple incurved rim and a profile relieved by grooves. It is of a light-red ware of medium fabric and is treated with red slip. It occurs occasionally throughout the occupation of the site. Variant *11a* has a more incurved rim and lacks the external groove.

Type 12 is a simple rimless bowl with a flat base. It is of a light-red ware of fine or medium fabric and is normally treated with red slip both inside and out. It occurs occasionally throughout the occupation of the site. Variants *12a-b* are relatively commoner than *12c-d*. The last variant (*12d*) is deeper than the others and is confined to Phase IV.

Type 13 is a bell-shaped bowl with a foot-ring. It is of a light-red ware of fine fabric and normally has a red slip on both faces. It is a specialized type and occurs occasionally throughout the occupation of the site. Variants *13a-b* are less common than the main type, the latter (*13b*) being considerably taller in form. Variant *13c* is much larger in size and is confined to Phase IV.

Type 14 is a bell-shaped bowl with a flaring rim and grooved shoulder. It is of a light-red ware of fine fabric and is treated with red slip both inside and out. It is a rare type, confined exclusively to Phase III.

Type 15 is a bowl with a high rim, grooved or ribbed neck, bulging body and flat base. It is of a light-red ware of fine fabric and is normally treated with red slip both inside and outside. This is one of the characteristic types of the site and occurs fairly frequently throughout its occupation. Variant *15a*, of a smaller size than the main type, comes next in frequency, while *15b* and *15c* are rare variants peculiar to Phase II and III respectively.

Type 16 is a simple small bowl or dish with a rounded or sagger base. It is of a dull-red or light-red ware of medium fabric and is sometimes treated with red slip on both faces. It is a minor type, occurring sporadically from Phase III to the post-structural period. Variant *16c*, distinguished by external grooves and a larger size, is a unique specimen from the north-east bastion and is contemporaneous with it (second half of first century B.C.).

Type 17 is a bowl with a bevelled rim. The shape of its base is unknown. It is of a light-red ware of medium fabric and is generally treated with red slip both inside and out. It is a rare type but occurs sporadically at all periods. Variant *17a* has a grooved body.

Type 18 is a dish with an almost flat rim and a sagger base. It is of a light-red ware of medium fabric and is treated with red slip on both sides. It occurs occasionally throughout the occupation of the site, though variant *18a*, with a completely flat rim, is peculiar to Phase I.

Type 19 is a simple thick-walled dish with a bluntly-beaked rim. It is of a greyish-red or light-red ware of medium or coarse fabric and is normally devoid of slip. It is a minor type but occurs occasionally throughout the occupation of the site. Variant *19a* is distinguished from the main type by numerous tiny external grooves.

Type 20 is a dish with an externally-grooved rim having a slight inward projection. It is of a light-red ware and is normally treated with red slip on both faces. It is a rare type but occurs sporadically in Phases I to IV. Variant *20a* deviates from the main type in having a hammer-head rim.

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[1] *Ancient India*, no. 1, p. 44, fig. 2, 23.

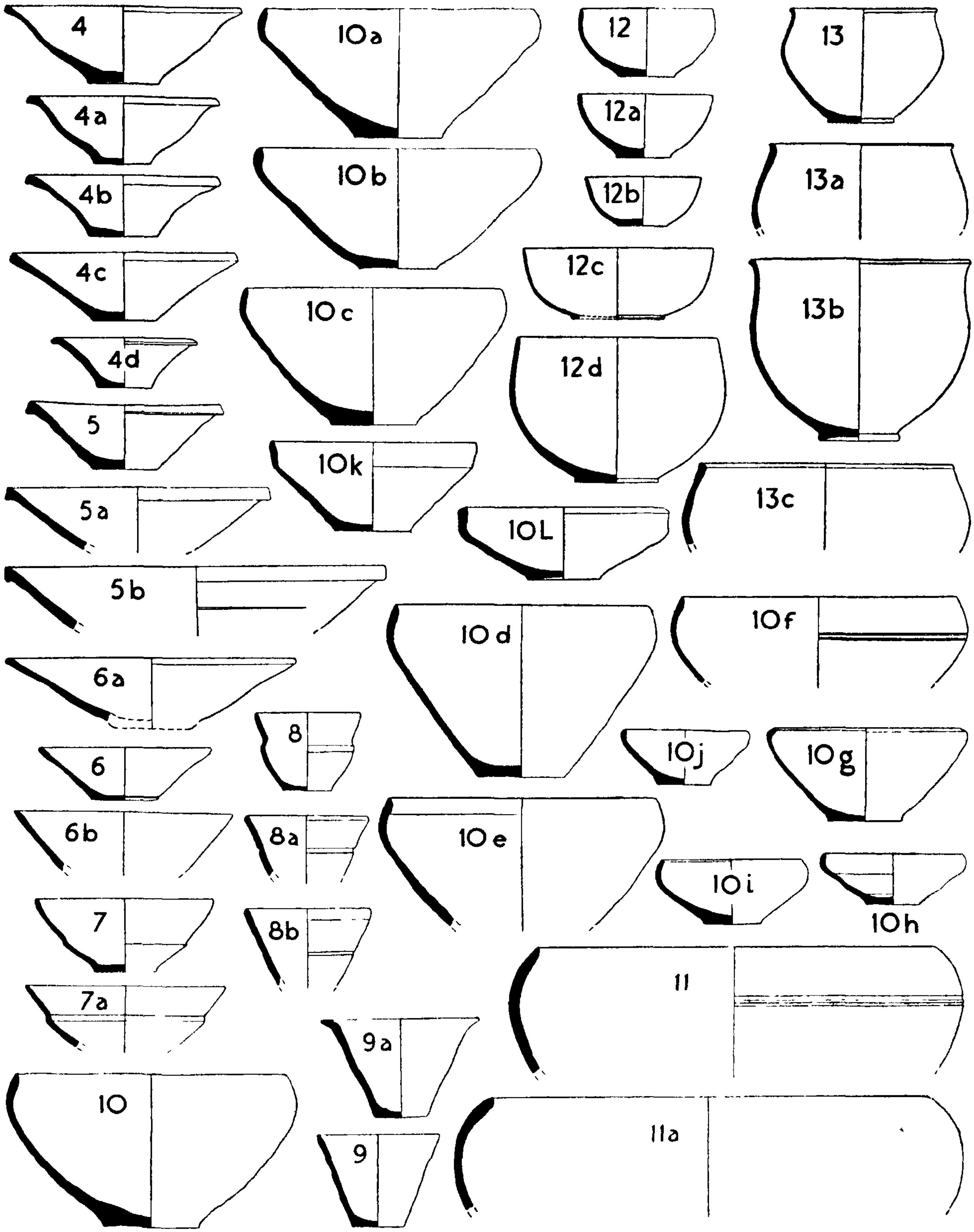


FIG. 4. *Pottery from Sirkap, 1945.* ¼

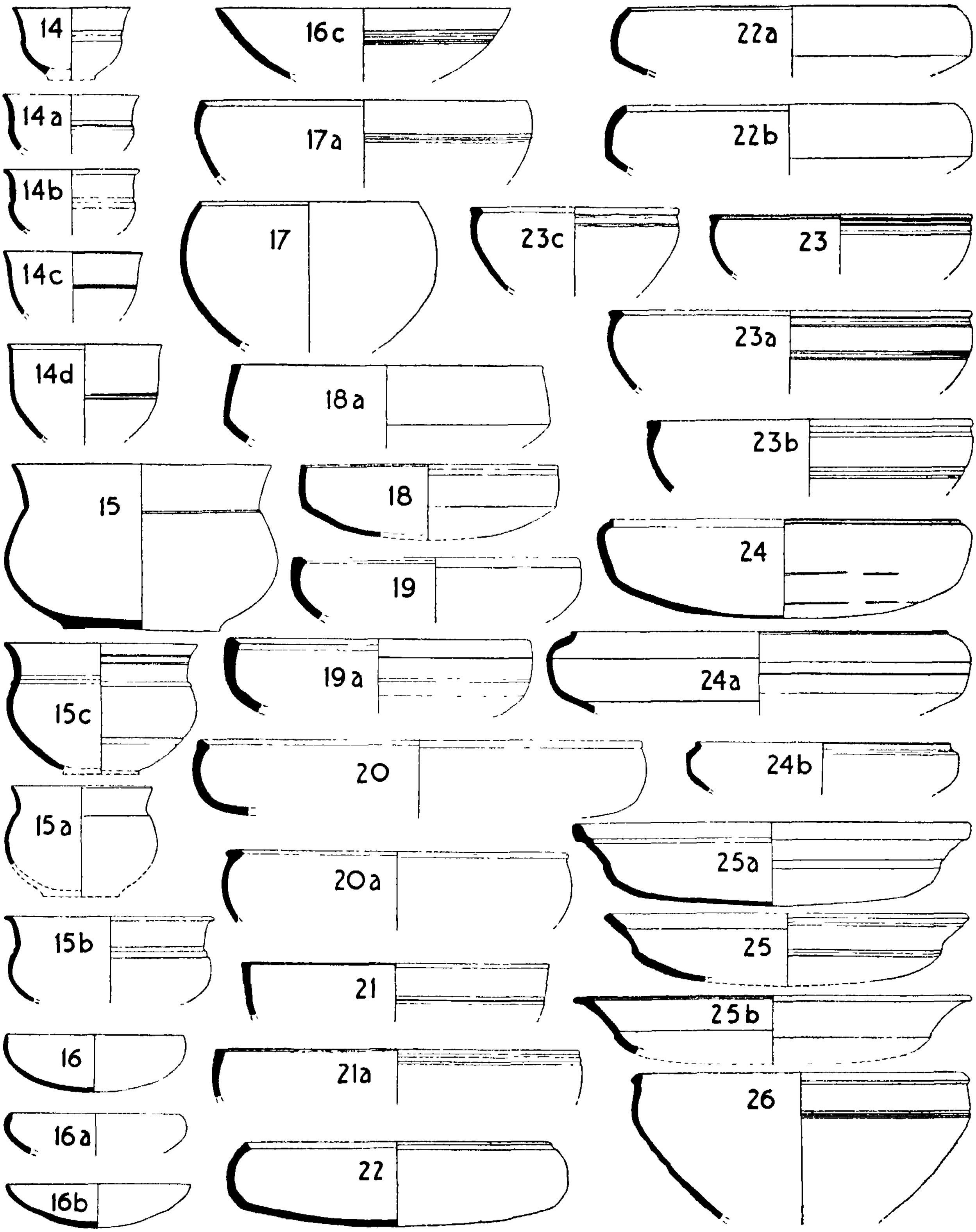


FIG. 5. *Pottery from Sirkap, 1945.* ¼

Type 21 is a bowl or dish with a distinctive rim having an external groove. It is normally of a light-red ware with red slip inside and outside, though there is a solitary specimen of grey ware. It is a rare type but occurs sporadically at all periods of the site. Variant 21*a* deviates from the main type in having two external grooves.

Type 22 is a dish distinguished by a bevelled rim with an external groove. It is of a light-red ware of medium fabric and is normally treated with bright-red slip both inside and out. It is a minor type but occurs occasionally at all periods of the site. Variants 22*a-b* lack the external groove of the main type.

Type 23 is a dish or bowl with a hammer-head rim and external grooves. It is of a light-red ware of fine fabric and is invariably treated with bright-red slip both inside and outside. It is a minor but specialized type and occurs sporadically through all phases. Variants 23*b* and 23*c* are less common but occur at all periods.

Type 24 is a dish with a sagger base and beaded rim. It is of a light-red ware of fine or medium fabric and is normally treated with red slip inside and outside. This is one of the specialized types of the site and occurs fairly frequently through all phases of its occupation. Variant 24*a*, with a more incurved rim, is less common but occurs at all periods; while 24*b* is peculiar to Phases II-III.

Type 25 is a dish or pan with a peculiar thickened rim, slightly concave side and a sagger base. It is of a greyish-red or light-red ware of fine, often hard-burnt, fabric and is normally treated with red slip both inside and outside. This is one of the highly specialized types of the site and occurs occasionally throughout the occupation. Variant 25*a* is a solitary specimen from Pit 10 (between Phases II and III), while 25*b* is peculiar to Phases II-III.

Type 26 is a thin-walled basin with a small rim sloping outward and a corrugated exterior. It is of a light-red ware of medium fabric and is treated with red slip inside and out. This is a rare type confined to Phases I-II.

Type 27 is a thick-walled basin with an inturned and thickened rim, tapering profile and a flat base. It is of a greyish-red or light-red ware and is normally of coarse gritty fabric, burned grey in the core. It is usually treated with red slip both inside and outside. This is one of the commonest types of the site and occurs throughout its occupation. With the exception of variants 27*h–j* which are peculiar to Pit 6 (between Phases I and II), and 27*k*, peculiar to Phase IV, all variants are present in all periods.

Type 28 is a basin with a thick incurved rim tapering to a point. It is of a light-red ware of coarse fabric and is treated with red slip both inside and outside. It is a minor type but occurs sporadically throughout the occupation of the site. Variant 28*a* is a rare form, peculiar to Pit 6 (between Phases I and II).

Type 29 is a basin distinguished by a beaked rim. It is of a brownish-red ware of coarse fabric and is treated with red slip inside and outside. It is a very rare type, but occurs both in the pre-structural period and Phase IV and presumably, therefore, had a long life. Variant 29*a* has a less pronounced beak than the main type.

Type 30 is a basin with grooves below a distinctive thickened rim. It is of a light-red ware of medium fabric and is treated with red slip both inside and out. It occurs occasionally in Phases I–III.

Type 31 is a basin with a hammer-head rim having external grooves. It is of a light-red ware of medium to coarse fabric and is normally treated with red slip both inside and outside. It occurs occasionally at all periods of the site. Of its variants, 31*b–c* are confined to Phases I and II, while 31*d* is peculiar to the north-eastern area and is contemporary with the bastion (second half of first century B.C.). Variant 31*e* represents a unique specimen from the post-structural Pit 4.

Type 32 is a basin with a distinctive out-turned squarish rim and tapering sides. It is of a light-red ware of coarse gritty fabric and is treated with red slip on both faces. It is a rare type but occurs sporadically after Phase I.

Type 33 is a large bowl or basin with a distinctive thickened rim. It is of a light-red ware of medium or coarse fabric and is treated with red slip both inside and outside. It is a rare type confined to Phases III and IV.

Type 34 is a saucer-shaped lid with a solid knob-handle in the middle. It is of a dull-red or light-red ware of medium or coarse fabric and is normally devoid of slip. It occurs sporadically from the pre-structural period to Phase III. Of its variants, 34*f-g* are peculiar to the pre-structural period, while 34*i* is a unique specimen of grey ware from Pit 6 (between Phases I and II).

Type 35 is a large saucer-shaped lid with a hollow knob-handle in the middle. It is of a light-red ware of medium or coarse fabric and is sometimes treated with red slip inside. It is a minor type but occurs sporadically throughout the occupation of the site. It was apparently meant to cover large storage jars.

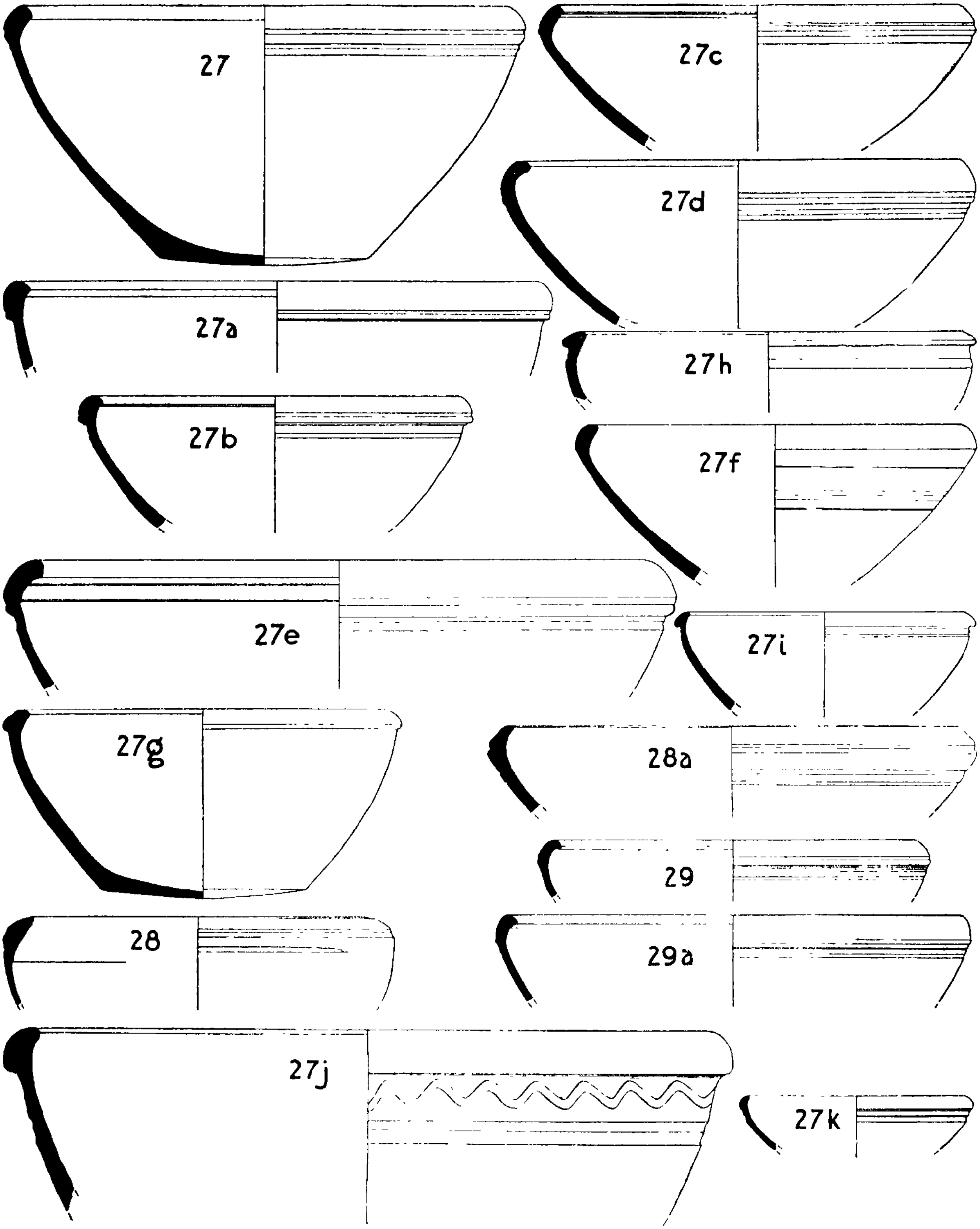


FIG. 6. *Pottery from Sirkap, 1945.* ¼

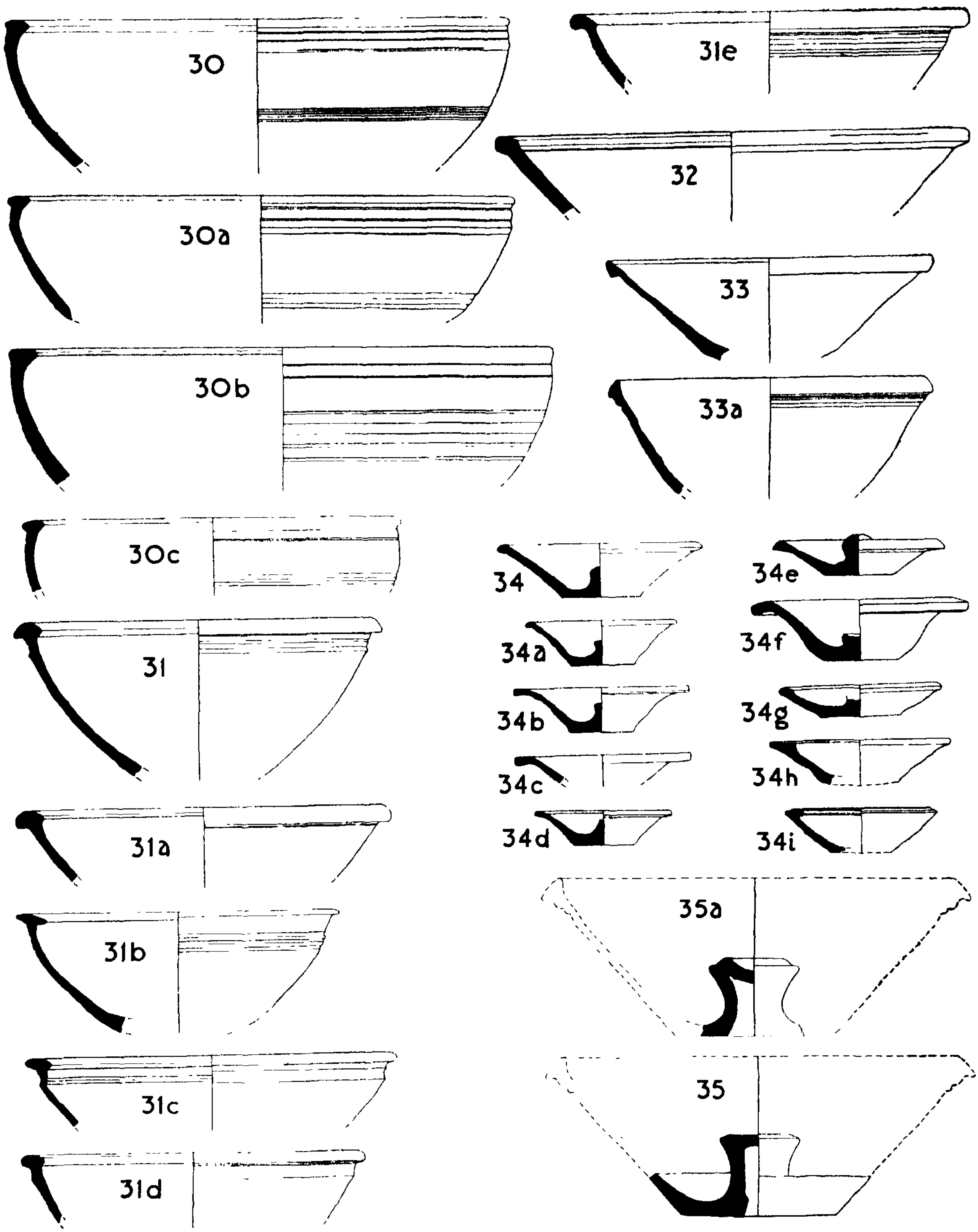


FIG. 7. *Pottery from Sirkap, 1945.* ¼

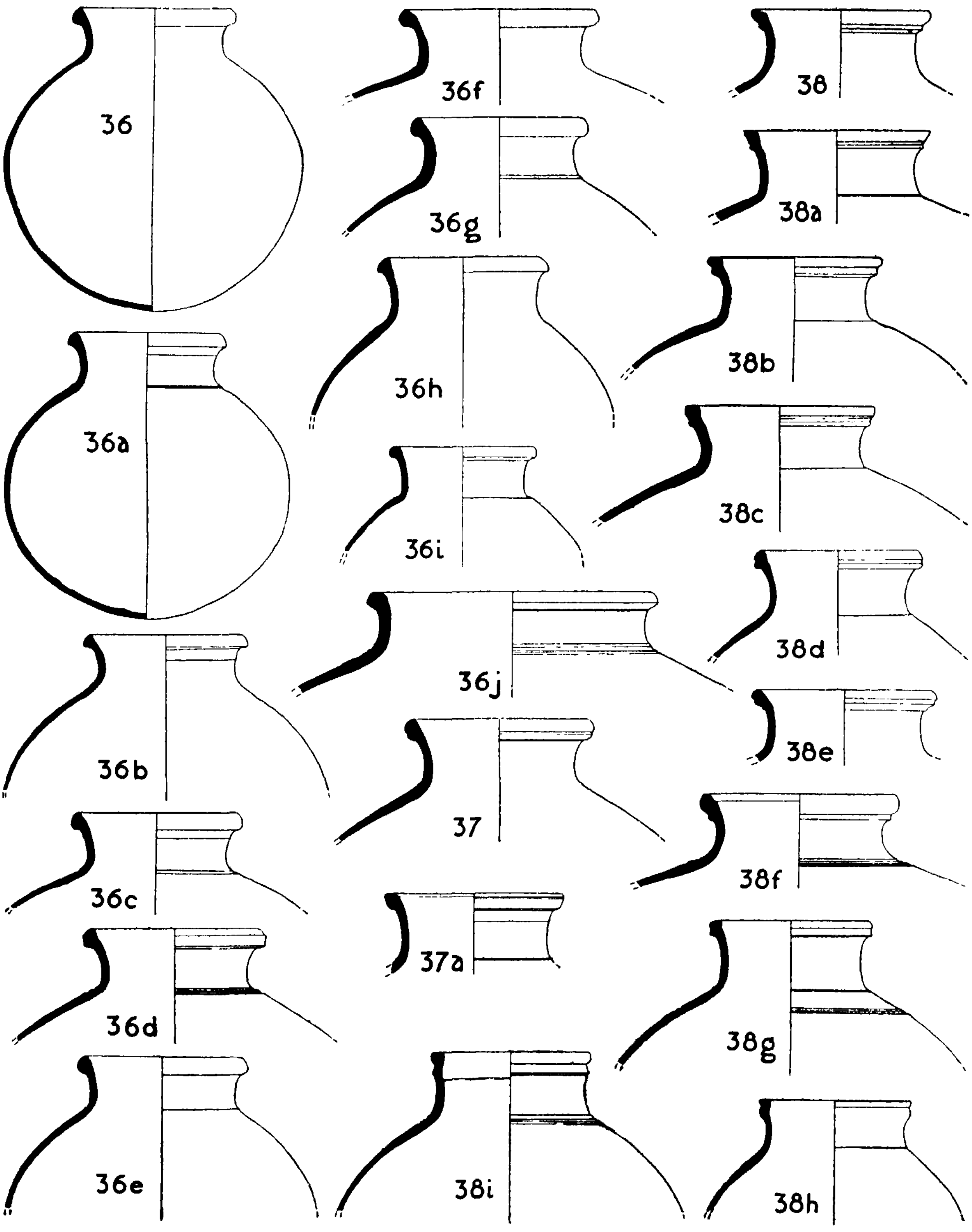


FIG. 8. *Pottery from Sirkap, 1945.* $\frac{1}{4}$

Type 36 is a simple *ghaṭa* or water-vessel with a thick out-turned rim, narrow neck and spheroid or elliptical body. It is of a greyish-red or light-red ware of coarse, often gritty, fabric and is normally treated with red slip outside. It is one of the commonest types and together with all its variants occurs abundantly throughout the occupation of the site.

Type 37 deviates from Type 36 in having an externally-grooved rim. It is of a greyish-red to light-red ware of medium fabric and is normally treated with red slip outside. It occurs occasionally throughout the occupation of the site. Variant 37*a* is peculiar to Pit 6 (between Phases I and II).

Type 38 is a *ghaṭa* or water-vessel, distinguished by an externally grooved rim and a short narrow neck. It is of a greyish-red to light-red ware of medium or coarse fabric and is usually treated with red slip outside. This is one of the very common types and occurs throughout the occupation of the site. Variants 38*b–g* are less common; while 38*h-i* are peculiar to Phases I–III.

Type 39 is a *ghaṭa* or water-vessel distinguished by two external grooves. It is of a greyish-red or light-red ware of medium or coarse fabric and is normally treated with red slip both inside and out. This is one of the common types and together with variants 39*a-b* occurs abundantly throughout the occupation of the site. Variants 39*c-d* are peculiar respectively to Pit 6 (between Phases I and II) and to Phase IV.

Type 40 is a *ghaṭa* or water-vessel with a distinctive flanged rim and an elliptical body here restored from examples in the Taxila Museum. It is of a brick-red ware of medium or coarse fabric and is devoid of slip. It is a rare type confined to Phase III of this site, though, curiously enough, it is very common in the earliest city of Taxila (Bhīr Mound).

Type 41 is a fairly large vessel with a flaring neck and a distinctive out-turned rim. It is of a greyish-red to light-red ware of medium to coarse fabric and is normally treated with red slip outside. This type together with variants 41*a-b* occurs occasionally throughout the occupation of the site. The specimen illustrating 41*b* (restored from an example in the Taxila Museum) has an individual feature in bearing black-painted decoration.

Type 42 deviates from Type 41 in having an externally grooved rim. It is of a greyish-red to light-red ware of medium fabric and is normally treated with red slip outside. It occurs occasionally at all periods of the site. Its variants are rare, though they are also present throughout.

Type 43 represents a large vessel with a short neck and a distinctive out-turned rim. It is of a greyish-red to light-red ware of medium or coarse fabric and is seldom treated with slip. This is one of the less common types but occurs throughout the occupation of the site.

Type 44 is a vessel distinguished by an out-turned rim and a soot-stained exterior, which indicates that it served as a cooking vessel. It is of a greyish-red to light-red ware of medium or coarse fabric and is normally treated with red slip outside. This is one of the commonest types of the site and occurs profusely throughout its occupation. Of its variants 44*e–i* are smaller and less common, though they also are present at all periods.

Type 45 is another cooking vessel, of a size normally smaller than Type 44, with an out-turned rim and distinctive ridged shoulder. It is of a dull-red or light-red ware of medium to coarse fabric and is generally treated with red slip outside. It occurs fairly frequently throughout the occupation of the site. Of its variants, 45*a* is restored from an example in the Taxila Museum, while 45*b–e* are peculiar respectively to Pit 10 (between Phases II and III), Pit 20 (pre-structural period), Pit 6 (between Phases I and II) and Pit 4 (post-structural period).

Type 46 is a rimless cooking vessel with a sharply-carinated shoulder and roughened exterior surface below the carination, here restored from examples in the Taxila Museum. It is of a dull-red ware with bright-red slip which normally does not appear below the carination. It is a rare type but occurs sporadically throughout the occupation of the site.

Type 47 is a small vessel with a short everted rim and globular body. It is of a dull-red or light-red ware of medium fabric and is treated with red slip outside. It is one of the minor types but occurs occasionally at all periods. Variant 47*a* is a vessel of a size smaller than the main type and is distinguished by external grooves.

Type 48 represents a pear-shaped vessel with an externally-clubbed rim, and resembles the modern vessel used on Persian water-wheels. It is of a brick-red ware of medium or coarse fabric and is invariably devoid of slip. It is a rare type occurring sporadically from the pre-structural period to Phase II. Restored from examples in the Taxila Museum.

Type 49 is a large vessel with a distinctive out-turned rim and a squat globular body. It is of a brick-red ware of medium fabric, and is a rare type confined to Phase IV.

Type 50 is a vessel with a recurved rim, globular body and a flat disc-base (restored from examples in the Taxila Museum). It is of a light-red ware of fine or medium fabric and is treated with a bright-red slip outside. It is one of the specialized but minor types of the site and occurs sporadically in Phases I–IV.

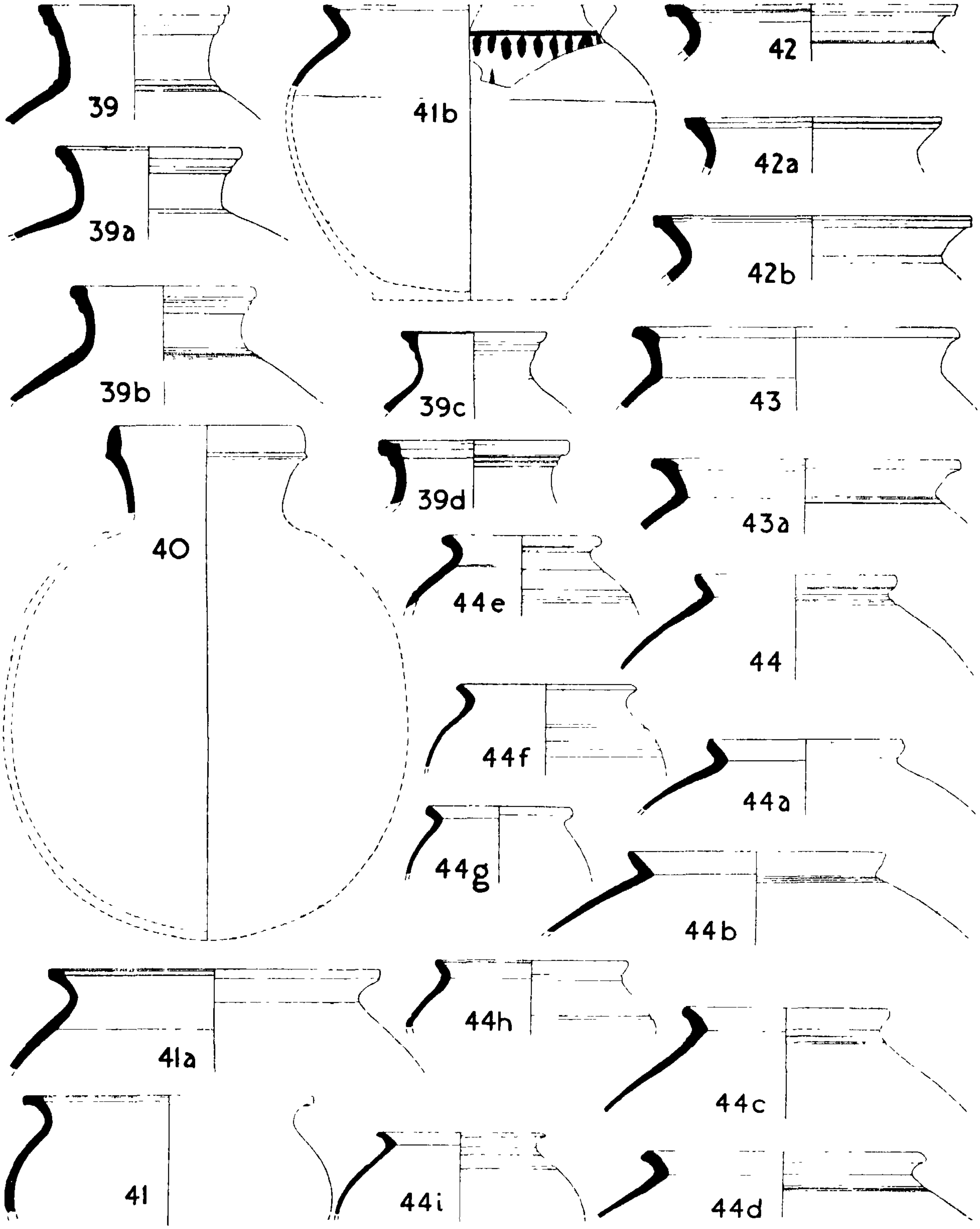


FIG. 9. *Pottery from Sirkap, 1945.* ¼

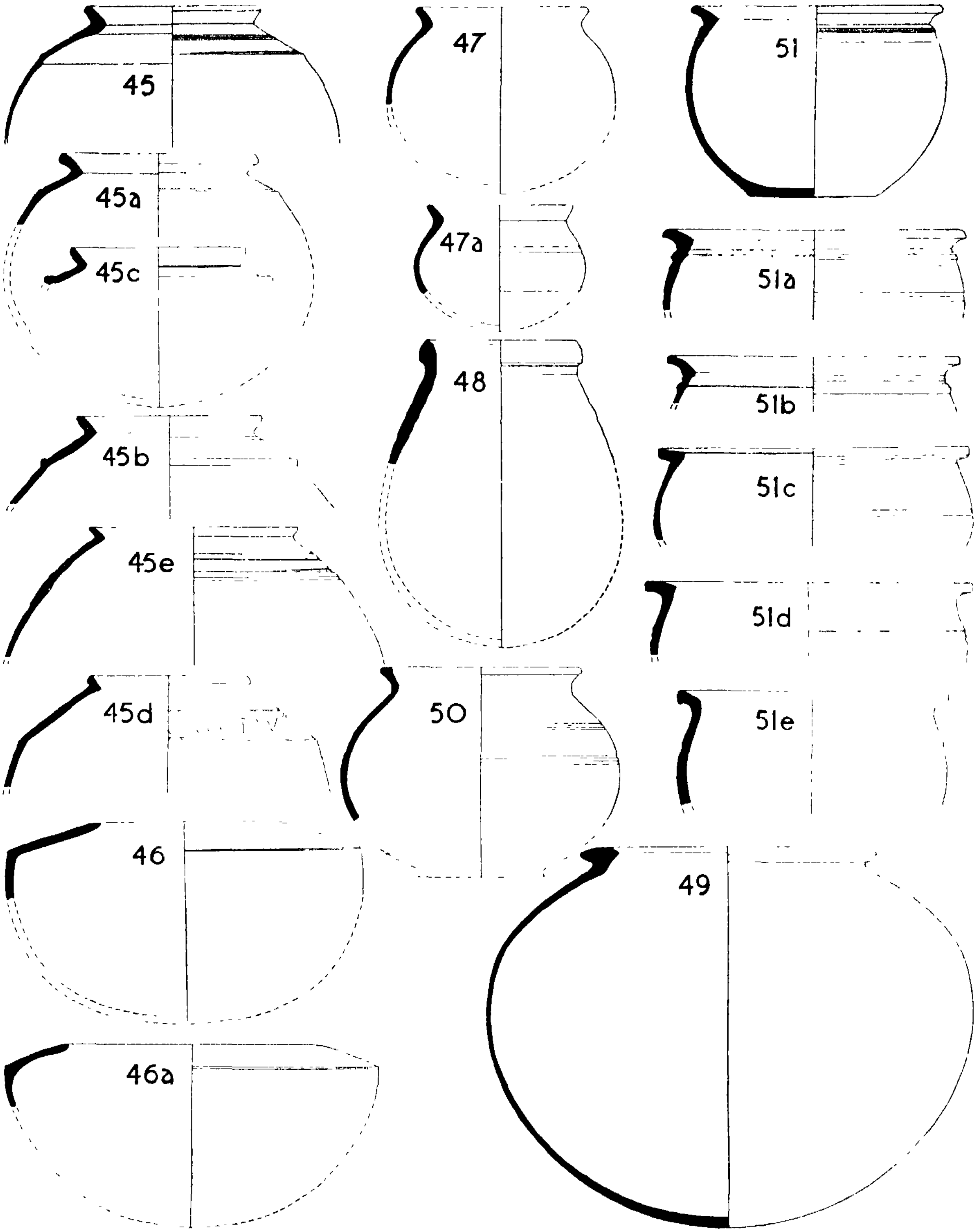


FIG. 10. *Pottery from Sirkap, 1945.* ¼

Type 51 is a deep bowl with a pronounced rim, ridged neck and flat base. It is of a light-red ware of fine or medium fabric and is normally treated with red slip both inside and out. It occurs occasionally throughout the occupation of the site. Variants 51*c–e* lack a ridge on the neck and are rarer.

Type 52 is a distinctive tall vessel with a grooved shoulder and a flat base. It is of a light-red ware of fine or medium fabric and is treated with red slip outside. It occurs sporadically throughout its occupation. Of its variants, 52*b-c* are of rare occurrence.

Type 53 is a goblet with a wide flaring mouth and a pedestal-base. Its prototype was of metal, examples of which have been found elsewhere at Sirkap. It is of a light-red ware of fine fabric and is treated with red slip inside and outside. It is one of the characteristic types of the site and together with its variants occurs abundantly throughout its occupation[1].

Type 54 is a goblet which deviates from Type 53 in being larger and taller and in having a less flaring mouth. It is of a light-red ware of fine fabric and is treated with red slip inside and outside. Like Type 53, it is a characteristic metal shape and occurs very commonly throughout the occupation. Variant 54*a* is thicker and less common and has grooves on the body.

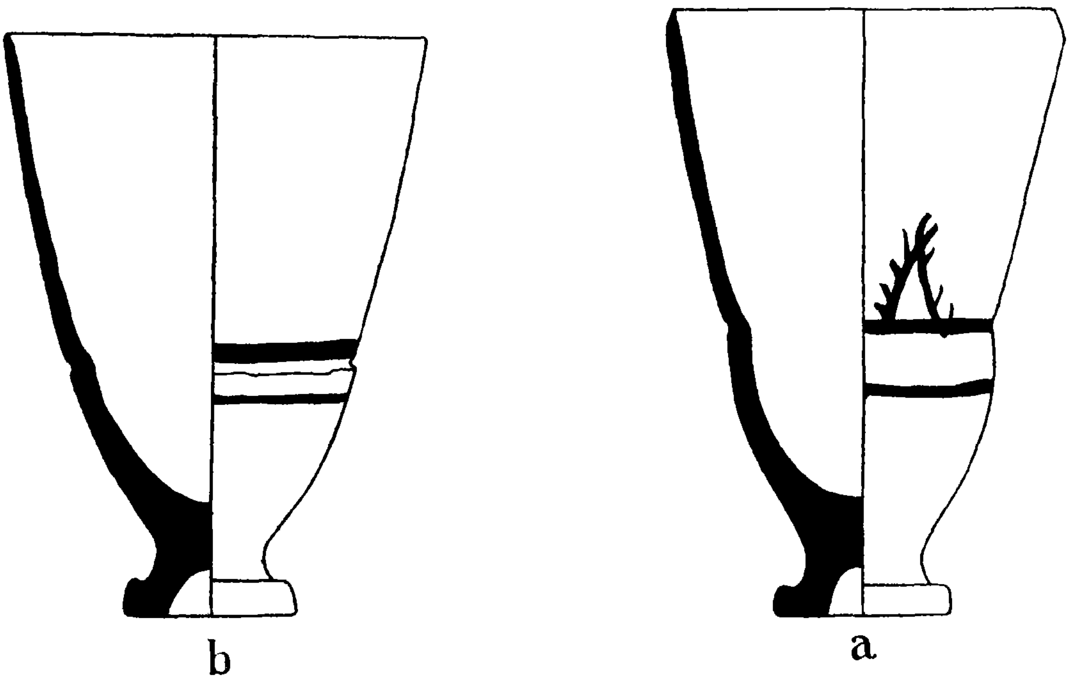


FIG. 11. *Pottery from Begrām, Afghanistan (red ware, patterns in brown paint).* ½

Type 55 is a squat and stumpy goblet with a pedestal-base and a high rim, here restored from an example in the Taxila Museum. It is of a light-red ware of fine or medium fabric and is treated with red slip inside and outside. It is relatively less common than Types 53-54 and occurs sporadically in Phases I and II.

Type 56 is a goblet with a flaring mouth, ridged or grooved waist and prominent disc-base. It is of a light-red ware of fine fabric and is normally treated with red slip both inside and out It is a characteristic type of the site and occurs commonly throughout its occupation. Variant 56*a* has an individual feature in bearing a painted floral decoration.

Type 57 is a large vessel with a pedestal-base and a distinctive shape, here restored from an example in the Taxila Museum. It is of a greyish-red to light-red ware of medium or coarse fabric and is normally treated with red slip outside. It is fairly common throughout the occupation of the site.

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[1] The type is also freely represented amongst the pottery from Begrām (50 miles north of Kabul, Afghanistan) in the Kabul Museum. See fig. 11.

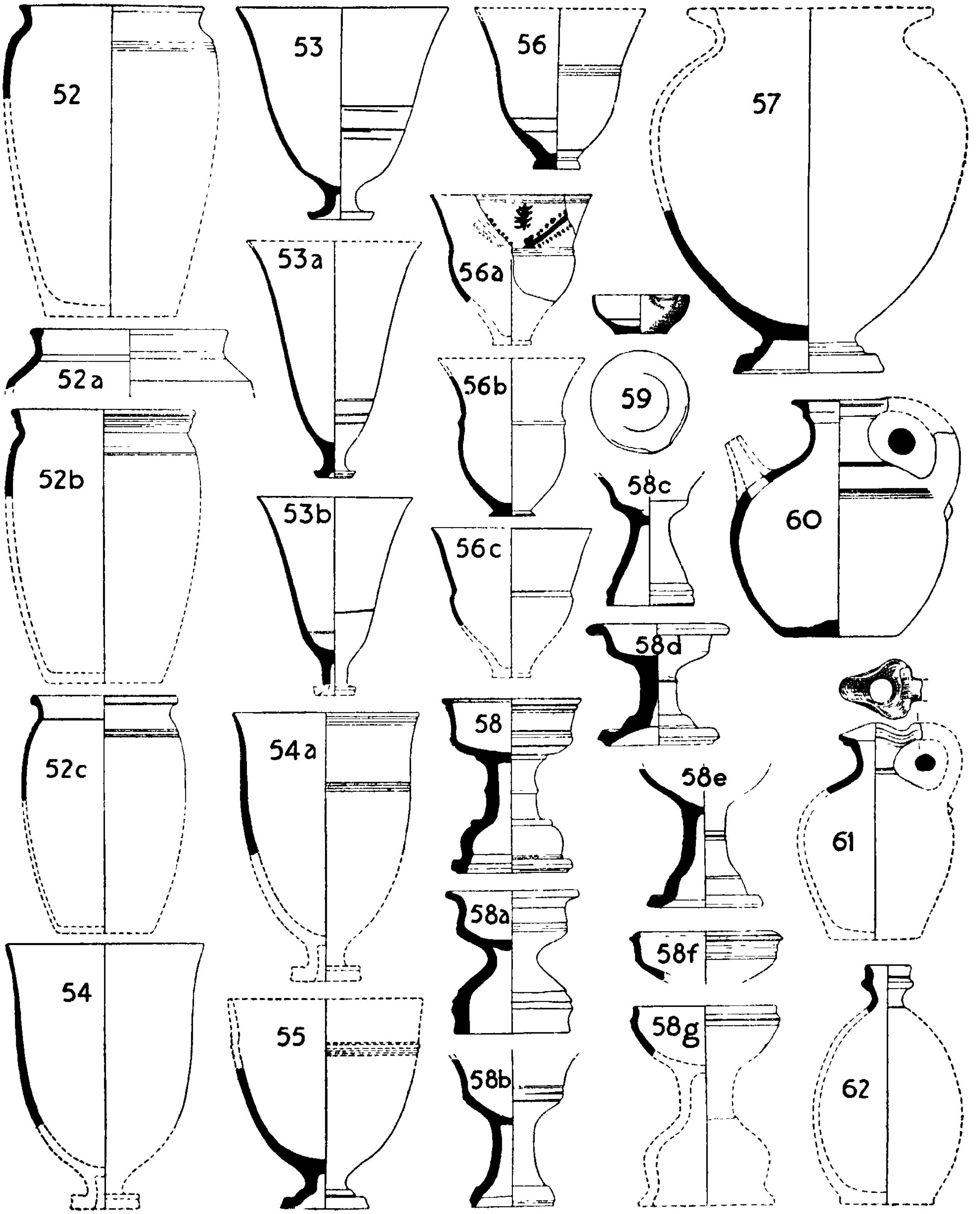


FIG. 12. *Pottery from Sirkap, 1945.* ¼

Type 58 is a lamp or incense-burner on a hollow pedestal-base. It bears marks of fire in the bowl. It is of a greyish-red to light-red ware of medium fabric and is normally treated with red slip throughout except the underside of the pedestal-base. The type with its variants occurs occasionally at all periods of the site.

Type 59 is a simple lamp with a pinched soot-stained lip. It is of a greyish-red to light-red ware of medium fabric and occurs throughout the occupation of the site.

Type 60 is a spouted and handled vessel with a distinctive bottle-neck, flattened rim, globular body and a flat base. The loop-handle connects rim and shoulder, and the specimen illustrated has at the base of the handle a 'nail-head' in imitation of a metal prototype. It is one of the specialized types of the site and resembles the modern *kūzā* which the Punjab Muslims use for ablution before saying their prayers. It is of a greyish-red to light-red ware of medium fabric and is treated with red slip outside. The type occurs occasionally throughout the occupation of the site.

Type 61 is a handled vessel with a bottle-neck and pinched lip, the portion below the shoulder being restored from examples in the Taxila Museum. The specimen illustrated has at the top of the handle two knobs probably representing the nail-heads of a metal prototype. It is of a light-red ware of medium fabric and is treated with red slip outside. It is one of the specialized types of the site but occurs occasionally throughout its occupation.

Type 62 is the bottle-neck of a vessel which is restored here from an example in the Taxila Museum. It is an extremely rare type of fine grey ware and comes from Phase I.

Type 63 is a stumpy vessel of a distinctive shape which is restored from an example in the Taxila Museum. It is of a coarse red ware with red slip outside. It is a rare type and comes from the pre-structural phase.

Type 64 is a small narrow-necked vessel with an elliptical body and flat base. It is of a light-red ware and is a rare type occurring before Phase III.

Type 65 is a miniature vessel of a shape akin to Type 64. It is of a light-red ware with red slip outside and occurs frequently throughout the occupation of the site. Variant 65*b* has a bottle-neck and a more bulged body.

Type 66 is a miniature vessel with a wide mouth and a flat base. It is of a light-red ware and is normally devoid of slip. It occurs occasionally at all periods of the site.

Type 67 is a miniature beaker with a flat base. It is of a light-red ware with red slip outside and occurs sporadically throughout the occupation of the site. Variant 67*b* is shorter and relatively rarer.

Type 68 is a miniature vessel with a double carination and a flat base. It is of a light-red ware of coarse fabric and is a rare type confined to Phase II. Analogues of this type also occur on other North Indian sites such as Ahichchhatra [1] where they date from A.D. 100 to 350.

Type 69 is a small vessel with double carination which has been restored from an example in the Taxila Museum. It is of a light-red ware with red slip outside and is a rare type occurring exclusively in Phase IV.

Type 70 represents a vessel with double carination, here restored from examples in the Taxila Museum; it is invariably two-handled. It is of a light-red ware with red slip outside and is an extremely rare type confined to Phases I-II.

Type 71 is a miniature vessel with a small opening, probably intended to serve as an ink-pot. It is of a light-red ware with red slip outside and is a rare type, confined to Phase IV.

Type 72 represents a crude hand-made rhyton (restored from an example in the Taxila Museum) which was probably used as an incense-burner. It has a long handle on one side, and is of a very coarse greyish-red ware. It is an extremely rare type confined to Phase IV.

Type 73 is a large closed vessel save for a small spout on one side. It is made of two pieces luted together, the line of the seam being marked by a conspicuous ridge. It is of a dull-red ware of gritty fabric, the lower portion being made of a coarser paste, freely mixed with sand, husk and large grits with the apparent intention of increasing its porosity. It is a highly specialized type but occurs occasionally throughout the occupation of the site. It may be part of an apparatus for condensing water. According to Sir John Marshall, 'the whole apparatus consists of a cooler or condenser, resting in a deep bowl of water, a condensing cowl, which fitted over the top of a *hānḍī* containing water, a pipe connecting cowl and condenser; and a tripod on which the *hānḍī* rested with a fire beneath it. The steam thus generated passed into the cooler and was condensed.' The present vessel is the condenser of Marshall's series.

Type 74 is a large spouted bowl with a rounded base and represents the condensing cowl of the series described above under Type 73. A tube is assumed to have connected its spout with that of a vessel of Type 73.

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[1] *Ancient India*, no. 1 (1946), p. 44, fig. 2, 35.

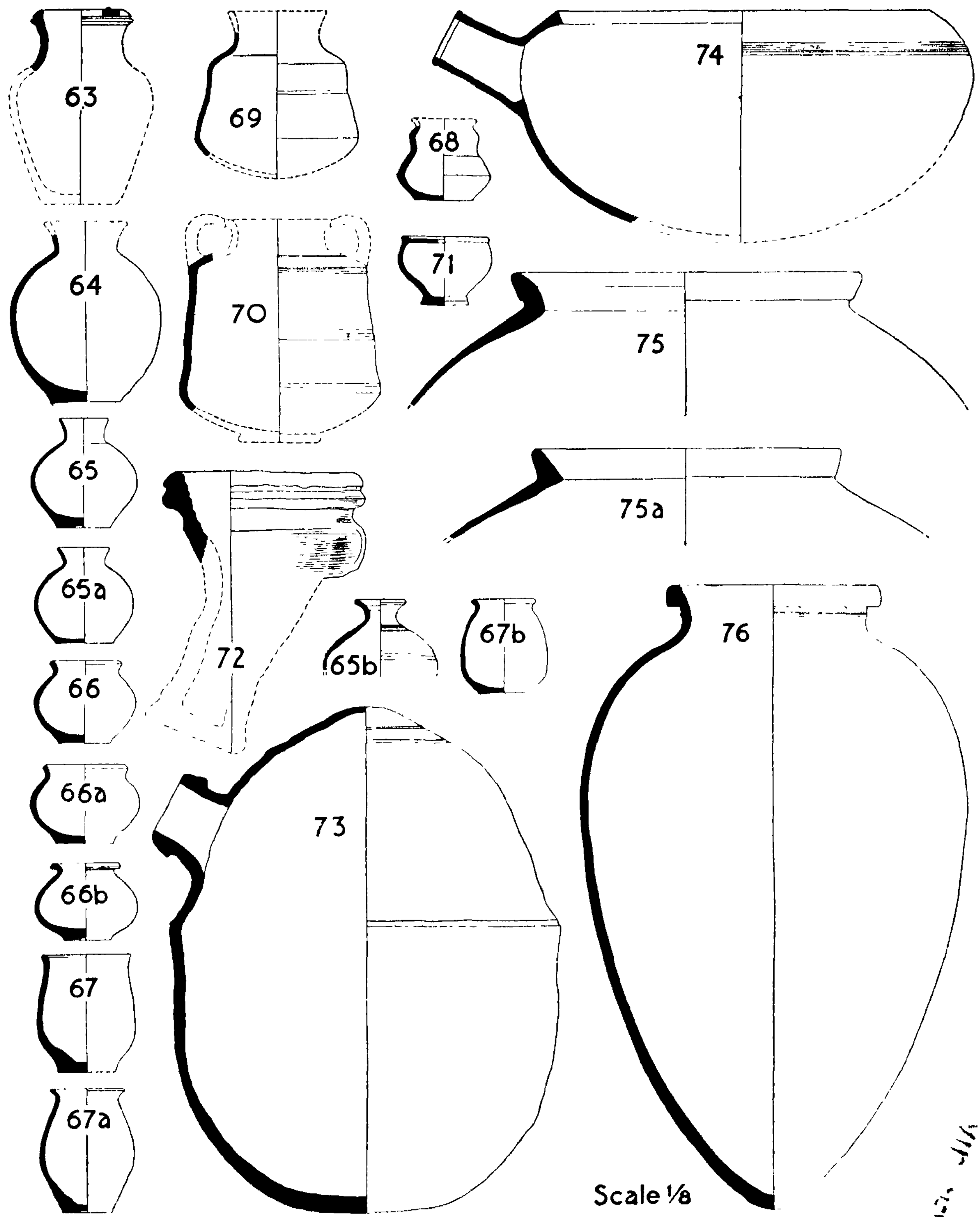


FIG. 13. *Pottery from Sirkap, 1945. ¼ except for nos. 73 and 76*

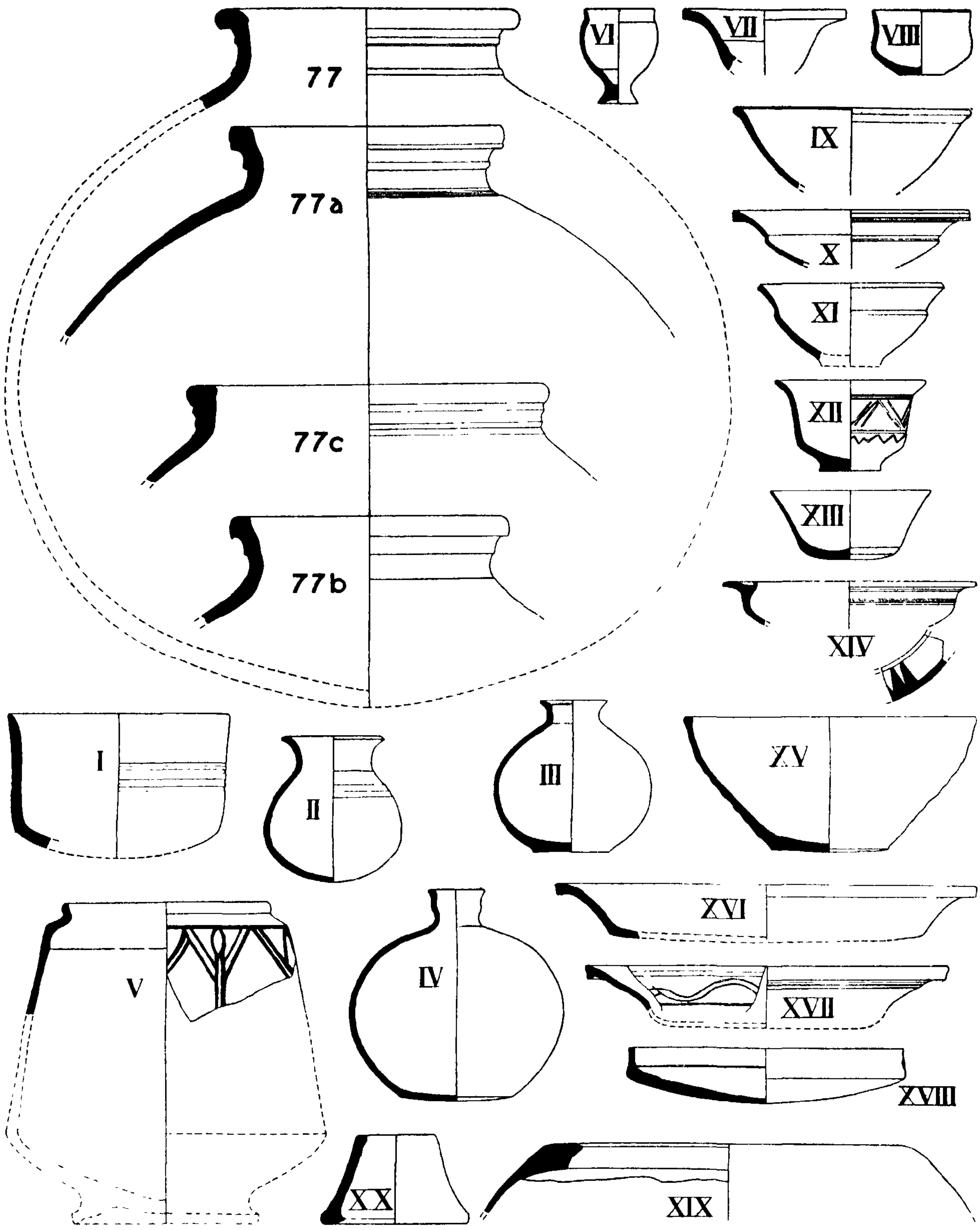


FIG. 14. *Pottery from Sirkap, 1945.* ¼

5B

It is of a light-red ware of medium or coarse fabric and is treated with red slip both inside and out. This is a rare type but occurs sporadically throughout the occupation of the site.

Type 75 is a storage-jar with an under-cut rim. It is of a greyish-red or light-red ware of gritty fabric with a grey core and is normally devoid of slip. It is the commonest type of storage-jar and occurs in fairly large quantity throughout the occupation of the site.

Type 76 represents the largest storage-jar with a heavy rim and an elliptical body tapering down to a blunt point. It is of a thick coarse greyish-red ware, freely mixed with large grits, limestone chips and wheat-straw, and is hand-made save for the neck, which occasionally shows traces of wheel-marks. It is a fairly common type occurring throughout the occupation of the site.

Type 77 is another type of storage-jar with a distinctive out-turned rim, cordoned neck, and spheroid body, restored from an example in the Taxila Museum. It is of a brick-red ware of coarse fabric, usually burning grey in the core, and sometimes shows red slip outside. This is a fairly common type and occurs at all periods of the site.

MISCELLANEOUS POTS AND SHERDS

Exceptional forms (fig. 14)

Besides the pottery types noticed above, the following atypical pots and sherds of diverse shapes, some decorated and others plain, may be noted:—

I. Deep bowl with a sagger-base and an almost straight side relieved by grooves. Light-red ware, grey core, smoothed red slip outside. Pit 6 (between Phases I and II).

II. Small pot with a flaring mouth and a spherical body. Light-red ware, dark-red slip outside. Contemporary with the north-east bastion (second half of first century B.C.).

III. Small pot with a narrow neck, bulged body and a flat base. Light-red ware. Phase IV.

IV. Pot with a distinctive bottle-neck, bulged body and flat base. Dull-red ware. Phase IV.

V. Pot with a distinctive shape, bearing painted festoon ornament. Restored from a plain pot of analogous shape in the Taxila Museum. Light-red ware, polished bright-red slip outside. Phase I.

VI. Small hand-made goblet with pedestal-base. Buff ware. Phase III.

VII. Fragmentary lid or cup with a wide flaring rim. Dull-red ware. Pit 6 (between Phases I and II).

VIII. Small cup of a distinctive shape with a flat base. Dull-red ware. Phase IV.

IX. Bowl with a flaring rim; base missing. Light-red ware, red slip. Pit 6 (between Phases I and II).

X. Bowl with a constricted neck and flaring grooved rim. Base missing. Light-red ware. Pit 10 (between Phases II and III).

XI. Bowl with ledged shoulder; base missing. Dull-red ware. Pit 6 (between Phases I and II).

XII. Bell-shaped bowl with prominent disc-base. Decorated with rows of incised festoons. Greyish-red ware, polished red slip inside and out. Post-structural.

XIII. Bowl with a flat heavy base and thin tapering sides. Light-red ware. Post-structural.

XIV. Bowl with flat rim having a raised edge, apparently designed to receive a lid. Base missing. Interior of the rim decorated with a painted ornament of triangles. Light-red ware, red slip outside. Pre-structural.

XV. Bowl with a corrugated exterior and flat base. Light-red ware. Pre-structural.

XVI. Dish or pan with flaring rim and flat base. Soot-stained externally and internally. Dull-red ware, red slip inside and out. Pit 6 (between Phases I and II).

XVII. Dish or pan of a shape analogous to No. XVI but of grey ware and bearing curvilined incised ornament on the interior. Phase I.

XVIII. Dish with straight side and heavy sagger-base. Dull-red ware. Phase III.

XIX. Upper part of a vessel of distinctive shape with in-turned clubbed rim. Gritty dull-red ware. Pit 10 (between Phases II and III).

XX. Small pot-stand. Greyish-red ware. Between Phases I and II.

Painted sherds (figs. 15-16)

XXI. Fragment of a pot (restored from an example in the Taxila Museum) bearing black-painted festoons and tassels. Light-red ware, bright-red slip. Phase IV.

XXII. Sherd with black-painted fringe at the neck, criss-cross frieze and festoons. Light-red ware, bright-red slip outside. Phase III.

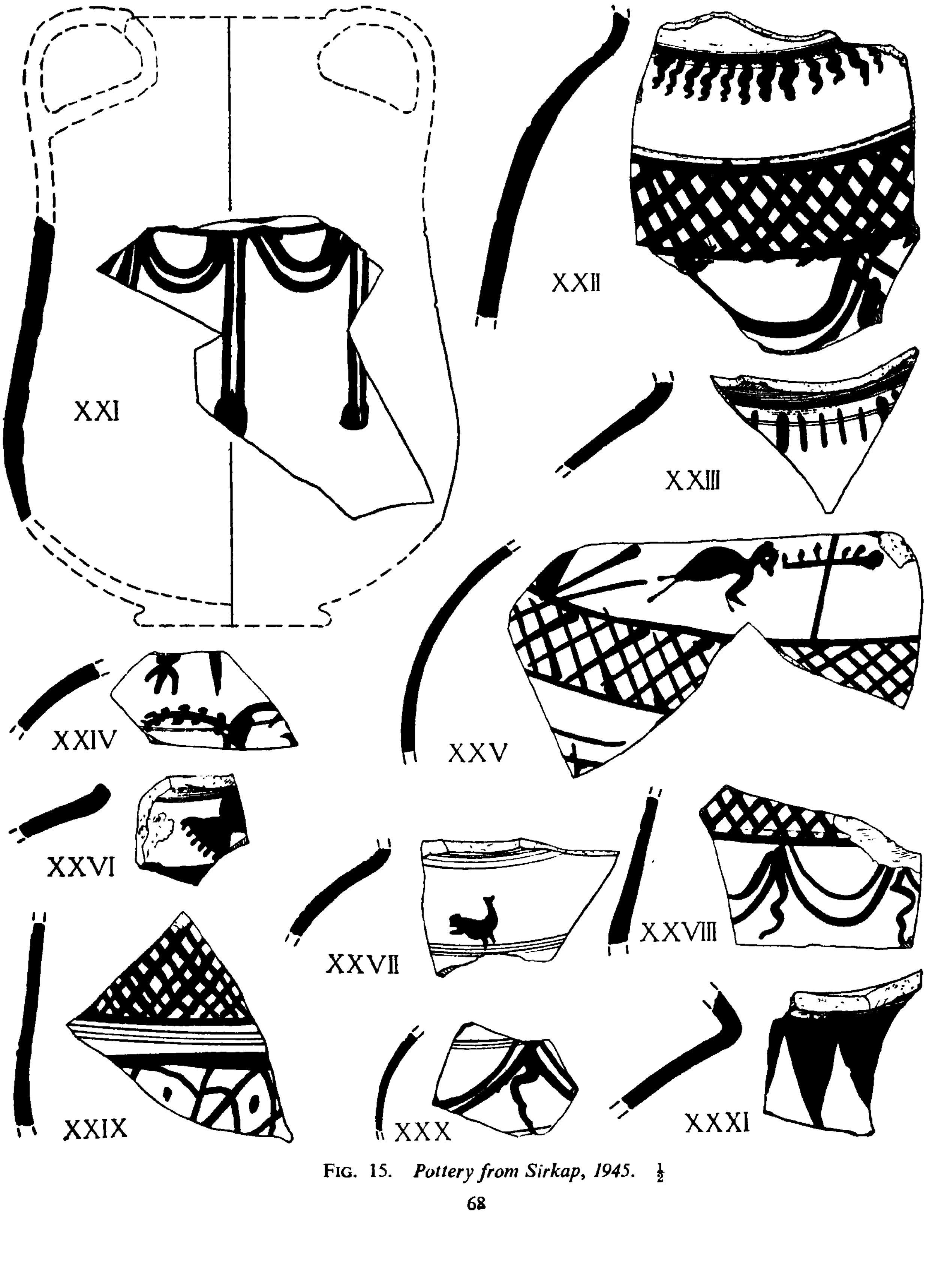


FIG. 15. *Pottery from Sirkap, 1945.* ½

XXIII. Neck-fragment of a pot painted with a row of simple strokes of irregular thickness. Light-red ware, red slip outside. Between Phases I and II.

XXIV. Sherd with fragmentary black-painted pattern. Light-red ware, red slip outside. Between Phases I and II.

XXV. Sherd painted with a row of black criss-cross pattern surmounted by a bird. Light-red ware with grey core, red slip outside. Between Phases I and II.

XXVI. Neck-fragment with black-painted design. Light-red ware, red slip outside. Phase I.

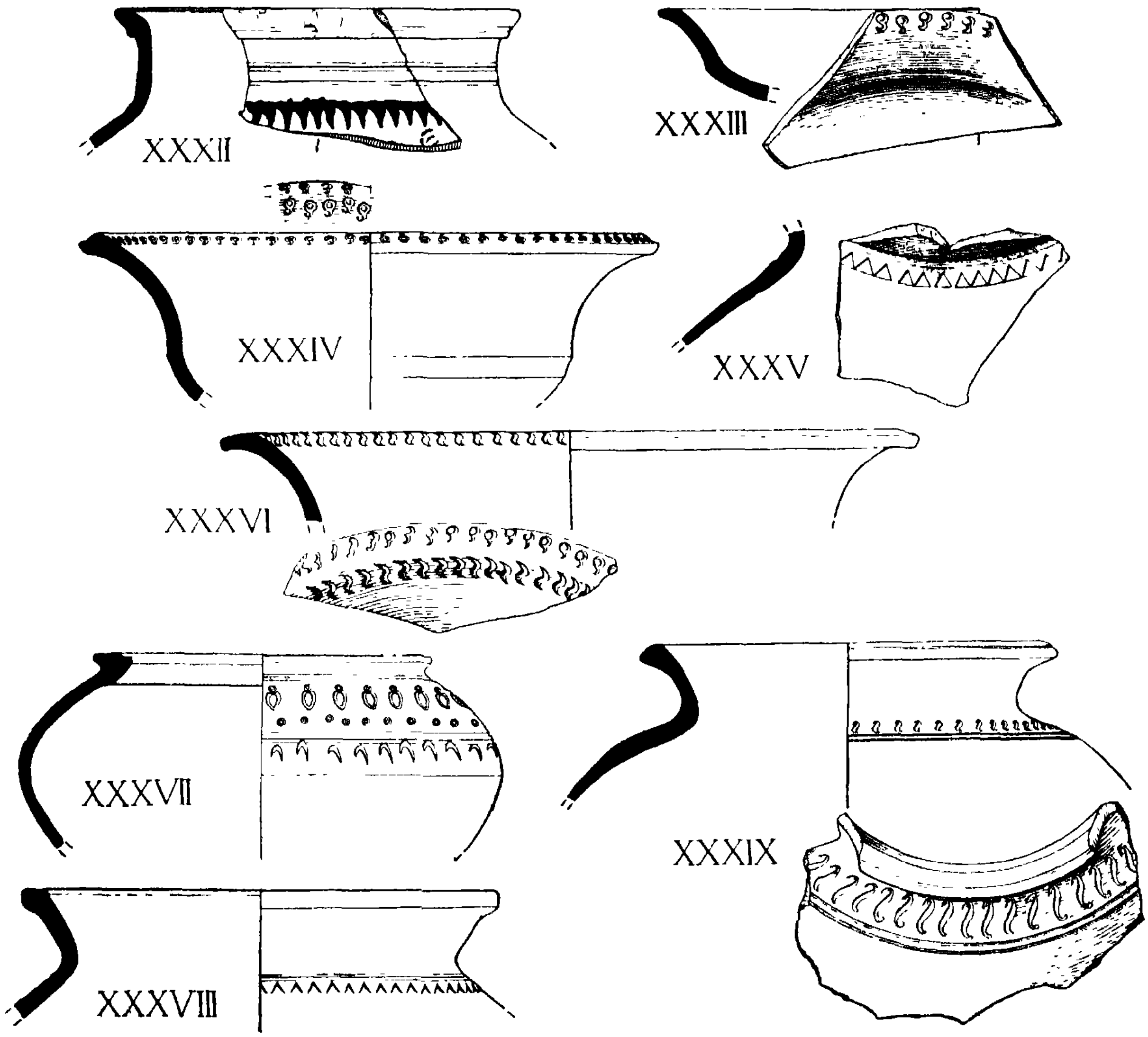


FIG. 16. *Pottery from Sirkap, 1945.* 1/3

XXVII. Sherd black-painted at the shoulder with a bird-design. Light-red ware, polished red slip outside. Between Phases I and II.

XXVIII. Sherd with black-painted criss-cross and festoon-and-tassel patterns. Light-red ware with grey core, bright-red slip outside. Pre-structural.

XXIX. Sherd black-painted with criss-cross pattern and irregular compartments, some containing dots. Light-red ware, red slip outside. Between Phases I and II.

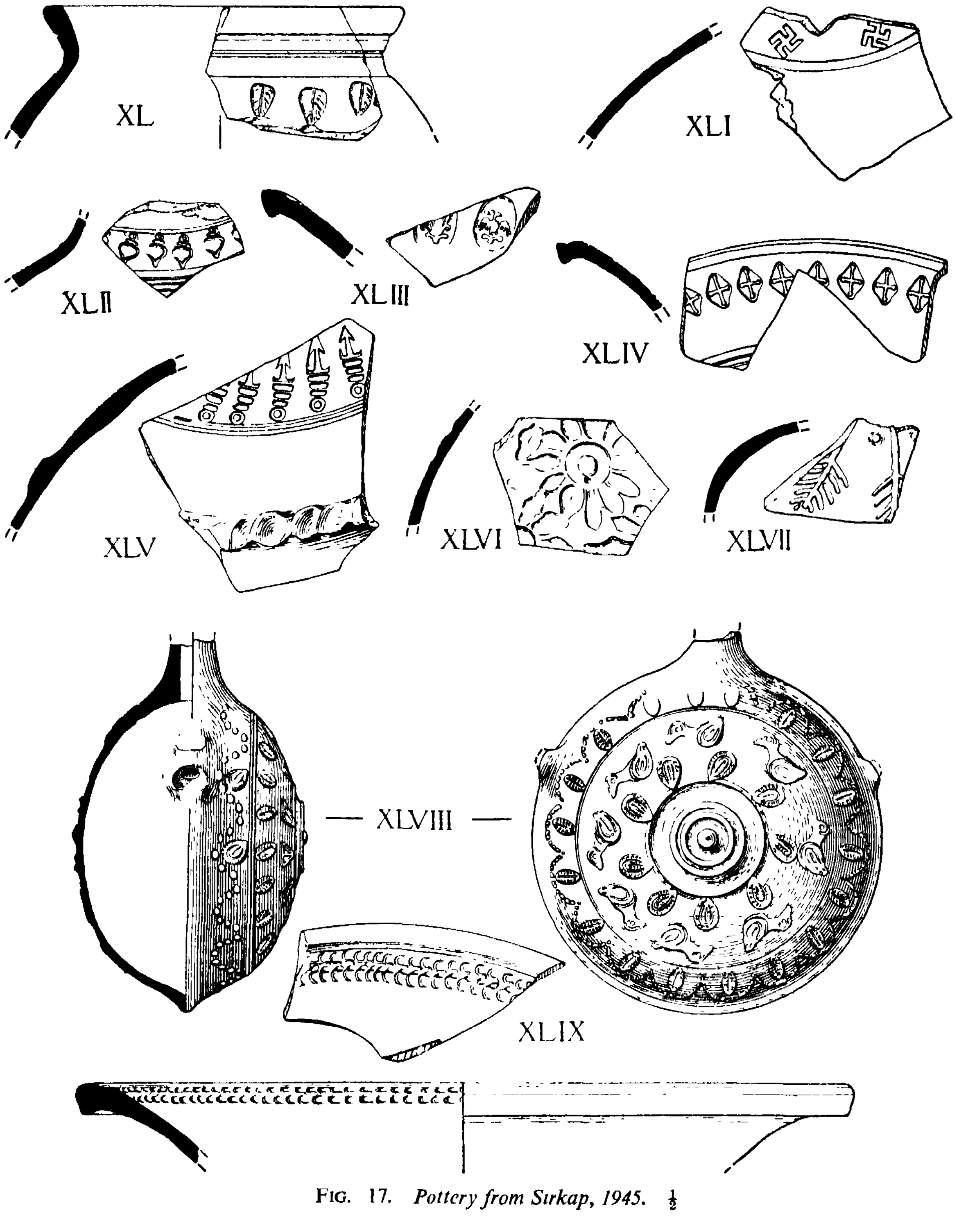


FIG. 17. *Pottery from Sirkap, 1945.* ½

XXX. Sherd black-painted with festoon-and-tassel pattern. Fine light-red ware, smoothed bright-red slip outside. Between Phases II and III.

XXXI. Neck-fragment of vase painted with a row of solid black triangles. Greyish-red ware, grey core, red slip outside. Phase III.

XXXII. Fragment of a high-necked jar painted with a fringe of black triangles. Light-red ware with greyish core, smoothed red slip outside. Phase I.

Stamped ware (figs. 16-17)

XXXIII. Fragment of a dish or basin with flaring rim internally punched with a row of hollow circlets with hooks. Light-red ware, red slip both inside and outside. Between Phases I and II.

XXXIV. Fragment of a basin with widely flaring rim, internally punched with two rows of similar pattern. Light-red ware, red slip both inside and outside. Between Phases I and II.

XXXV. Neck-fragments decorated with a row of punched triangles. Gritty light-red ware, red slip outside. Between Phases I and II.

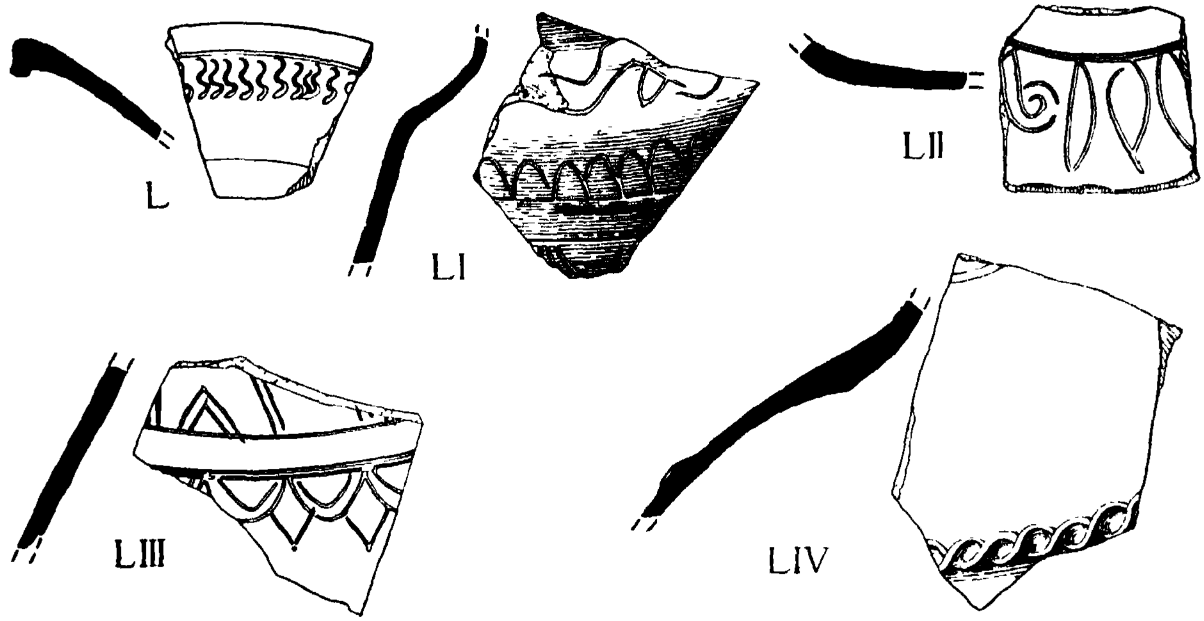


FIG. 18. *Pottery from Sirkap, 1945.* ½

XXXVI. Rim-fragment internally punched with a row each of circlet-with-hook and S-pattern. Light-red ware. Between Phases I and II.

XXXVII. Wide-mouthed squat vessel with hollow punched patterns representing heart-shaped objects, circlets and crescents. Light-red ware, red slip outside. Later than Phase I.

XXXVIII. Neck-fragment of a jar with decoration similar to XXXV. Gritty light-red ware, red slip outside. Between Phases I and II.

XXXIX. Fragment of a jar decorated with punched S-pattern at the shoulder. Light-red ware, bright-red slip outside. Between Phases I and II.

XL. Neck-fragment of a jar decorated with a row of punched leaves. Light-red ware, red slip. Between Phases I and II.

XLI. Sherd punched with *svastika*-design. Light-red ware, red slip outside. Phase III.

XLII. Neck-fragment punched with a row of conch-shells. Grey ware, greyish-black slip outside. Phase I.

XLIII. Rim-fragment probably of a dish decorated internally with stamped medallions showing a peacock and floral designs. Light-red ware. Between Phases I and II.

XLIV. Rim-fragment decorated internally with a row of impressed lozenges each bearing a cross. Light-red ware of coarse fabric, grey core. Pre-structural.

XLV. Sherd decorated with a row of stamped designs consisting of a circlet surmounted by three parallel lines with an arrow at the top. It also bears a band of finger-impressed ornament in relief. Light-red ware, red slip outside. Between Phases I and II.

XLVI. Sherd stamped with rosette-patterns in relief. Coarse greyish-red ware. Between Phases I and II.

XLVII. Sherd impressed with leaf and bead patterns. Light-red ware, traces of red slip outside. Between Phases I and II.

Moulded ware (fig. 17)

XLVIII. Small mould-made water-bottle executed in two pieces and fitted with a mouth and suspension-lugs. It is elaborately decorated in relief with cowrie-shells, birds, beaded arcading and triangular pendants. Light-red ware, red slip outside. Phase I.

Incised ware (figs. 17-18)

XLIX. Rim-fragment of basin internally decorated with two rows of incised crescents. Grey ware, burnished both inside and outside. Phase III.

L. Rim-fragment of a dish or basin internally decorated with incised sigmas. Grey ware, smoothed black slip both inside and out. Phase I.

LI. Fragment of the shoulder of a vase decorated with incised wavy lines at the shoulder and two rows of incised festoons below. Grey ware, smoothed greyish-black slip outside. Phase III.

LII. Base-fragment of a dish internally decorated with a conventionalized incised floral pattern. Grey ware. Phase I.

LIII. Sherd incised with a row each of double triangle alternating with uprights and conventionalized festoon-pattern. Grey ware, burnished outside. Post-structural.

Finger-tip ware (fig. 18)

LIV. Sherd decorated with an applied strip bearing finger-tip impressions. Greyish-red ware with grey core, red slip outside. Between Phases I and II.

5. OTHER SMALL FINDS

A. Beads and pendants

The beads and pendants found in previous excavations in Sirkap and other sites at Taxila have been dealt with by H. Beck in his 'Beads from Taxila'.[1] The proceeds of the excavation of 1944-45, limited as it was to a single trench and the clearance of the north-east bastion, do not contain any type or material not represented in the previous collection.

The present collection consists of one hundred and fifty beads, four pendants and one amulet. The following materials are represented: semi-precious stones, including carnelian, agate, crystalline quartz, lapis-lazuli and green jasper; shell; copper; white paste; glass; and terracotta.

Of the ten carnelian beads, seven are of spherical shape; six of these, including an etched one, were found in deposits intermediate between Phases I and II, the seventh being

[1] *Memoirs of the Archaeological Survey of India*, no. 65 (1941). (This does not deal with terracotta beads, which form a large percentage of the collection, nor with the gold beads.) The method of classification of shapes followed here is that of Beck. See also his 'Classification and Nomenclature of Beads and Pendants', *Archaeologia*, LXXVII (1928), 1ff., and *Ancient India*, no. 2 (1946), p. 97, n. 2.

from Phase III. Two long barrel beads, one of hexagonal and the other, which is etched, of circular cross-section, respectively come from a layer between Phases I and II and an unstratified deposit. A post-bastion layer in the north-east area yielded a frog-bead.[1]

Three beads of agate were found, all of cylinder circular shape. One of them, a standard bead, is contemporary with Phase IV, and the other two, both short beads, come from a post-structural and unstratified deposit respectively. A long barrel circular bead of crystalline quartz from Phase IV, a lapis-lazuli cowrie-pendant[2] from a post-structural deposit, and a flat drop-pendant of green jasper from Phase II are the only representatives of their respective materials.

Shell is represented by twenty-two specimens, of which two are pendants. The pre-structural layers yielded a spherical and a spheroid bead, and the post-structural layers a spherical one. Two barrel disc-beads were found in a layer between Phases II and III and in an unstratified deposit, and two short barrel circular beads in layers between Phases I and II and between III and IV respectively. Of the cylinder beads of shell, there are six disc circular beads, one from between Phases II and III; two each are from Phases III and IV; the sixth is unstratified. One cylinder square bead comes from a layer contemporary with the north-east bastion. There are two short cylinder beads, both from between Phases I and II, but one with a circular and the other a square cross-section. One standard cylinder bead and one long cylinder bead, both circular in cross-section, come from Phase IV and a pre-bastion layer in the north-east area. Of the two remaining beads of shell, one is broken and the other unfinished. Two flat drop-pendants of shell come from between Phases I and II and between II and III respectively.

Two beads of white paste were found: one is spheroid in shape and comes from Phase I; the other is a standard bead, cylinder and roughly circular in cross-section, and is unstratified. Copper is represented by a long cylinder circular amulet with broken knobs at the ends.

Of the fifty-five glass beads, thirty-six small beads form one group: they are of opaque glass with a colour ranging from dark-yellow to orange and copper-red and are disc cylinder circular (some approximating disc barrel circular) in shape. The smallest of these measure ·12 and the largest ·25 inch. They are found throughout the occupation of the site but are more frequent in the later deposits, the distribution being as follows: pre-structural layers, 3; between Phases I and II, 1; Phase III, 14; Phase IV, 12; post-structural, 1; unstratified, 4; a late deposit in the north-east bastion area, 1.

The material of the remaining glass beads is usually opaque but at times translucent and has different colours; the shapes also take different forms. Two spherical beads of blue glass and grey opaque glass and one of white opaque glass come respectively from between Phases I and II and Phase IV. The layers between Phases I and II yielded three spheroid beads of white, green and blue opaque glass; those between Phases III and IV, one of blue opaque glass; Phase IV, one of white iridescent glass; and a mixed layer, one of blue opaque glass. An opaque light-blue short barrel circular bead comes from an unstratified deposit; a standard bead and a long bead of the same shape and colour come from a similar deposit; and another opaque long bead of the same shape but of purple colour comes from a layer between Phases I and II. Cylinder glass beads are represented by a standard circular bead of green opaque glass from between Phases I and II, and two long beads, one of green opaque glass with a circular cross-section from between Phases I and II and the other of light-green translucent glass and of hexagonal cross-section from Phase III. Two cornerless cube beads, one of black opaque and the other of blue translucent glass

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[1] For frog-beads, see *Ancient India*, no. 2 (1946), p. 98, n. 5.

[2] Cf. 'Beads from Taxila', pl. VIII, 13.

come respectively from Phases I and II. A groove-collared[1] long barrel circular bead of grey opaque glass comes from a pre-structural layer.

Fifty-eight terracotta beads were found, but in this class have been included a few objects which might well have been used as spindle-whorls (cf. pl. XI, 43). It is, however, not possible, without being arbitrary, to draw a line between these objects and others which are certainly beads. The shapes represented in this class are as follows:—

(*a*) Pear-shaped, of which fifteen were found with the following distribution: Phase I, 1; in layers between Phases I and II, 3; Phase III, 5; Phase IV, 5; and unstratified, 1. A variant of this shape is characterized by a flat base and is represented by eight specimens (between Phases I and II, 1; Phase III, 1; Phase IV, 5; and unstratified, 1). Two specimens, truncated at both ends, were found, one each in a layer between Phases I and II and Phase IV.

(*b*) Bicone, mostly short, with the ridge of the cone smoothened, giving it an almost oblate shape, and invariably with a circular secondary shape. Fourteen specimens of this type were found uniformly distributed in all layers except the pre-structural ones and those contemporary with Phase I. A ridged specimen of this variant comes from the north-east bastion area.

Standard beads of this type, which may also be either ridged or ridgeless, are fewer in number. Two concave ridged beads come from a pre-structural layer and a layer between Phases II and III respectively. Phase IV yielded two ridged specimens with inconspicuous collars, one of them decorated with zig-zag lines. Two ridgeless beads were found, one each in a pre-structural deposit and a layer intermediate between Phases II and III.

(*c*) *Ghaṭa*-shaped. Some terracotta beads are shaped like a miniature *ghaṭa* or water-vessel. A typical example is a convex-based bead from Phase III. Four flat-based ones were found two in a layer between Phases I and II, one between Phases II and III and one in Phase III; a squat concave-based bead comes from between Phases I and II.

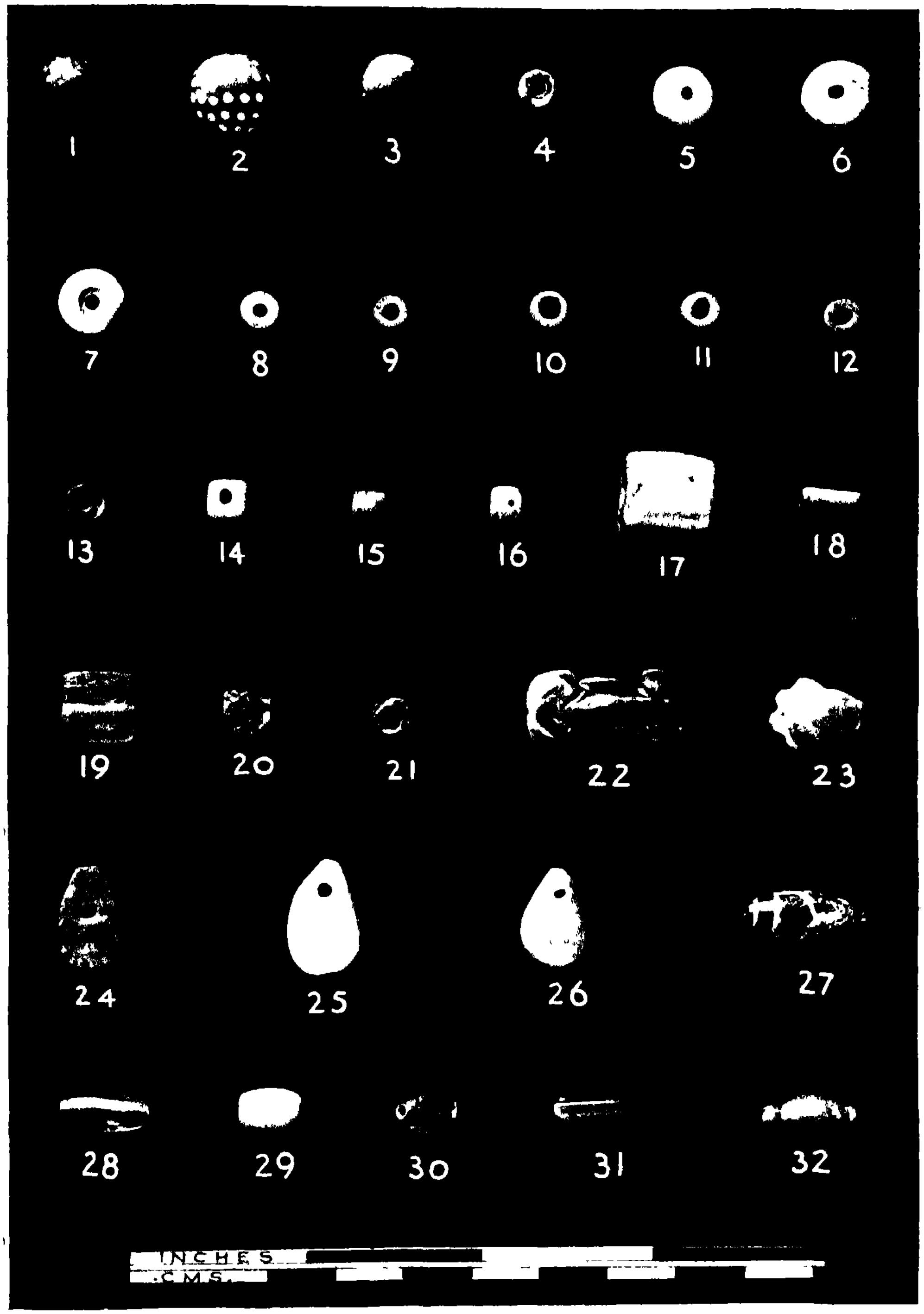
(*d*) Spheroid and spherical. Three spheroid beads were found, one each between Phases I and II, and Phase III and in a post-structural deposit. A spherical bead with six prominent knobs is again from a layer between Phases I and II.

(*e*) Miscellaneous. A long barrel circular bead from an unstratified deposit and a disc cylinder circular bead from Phase IV were two exclusive finds of their class.

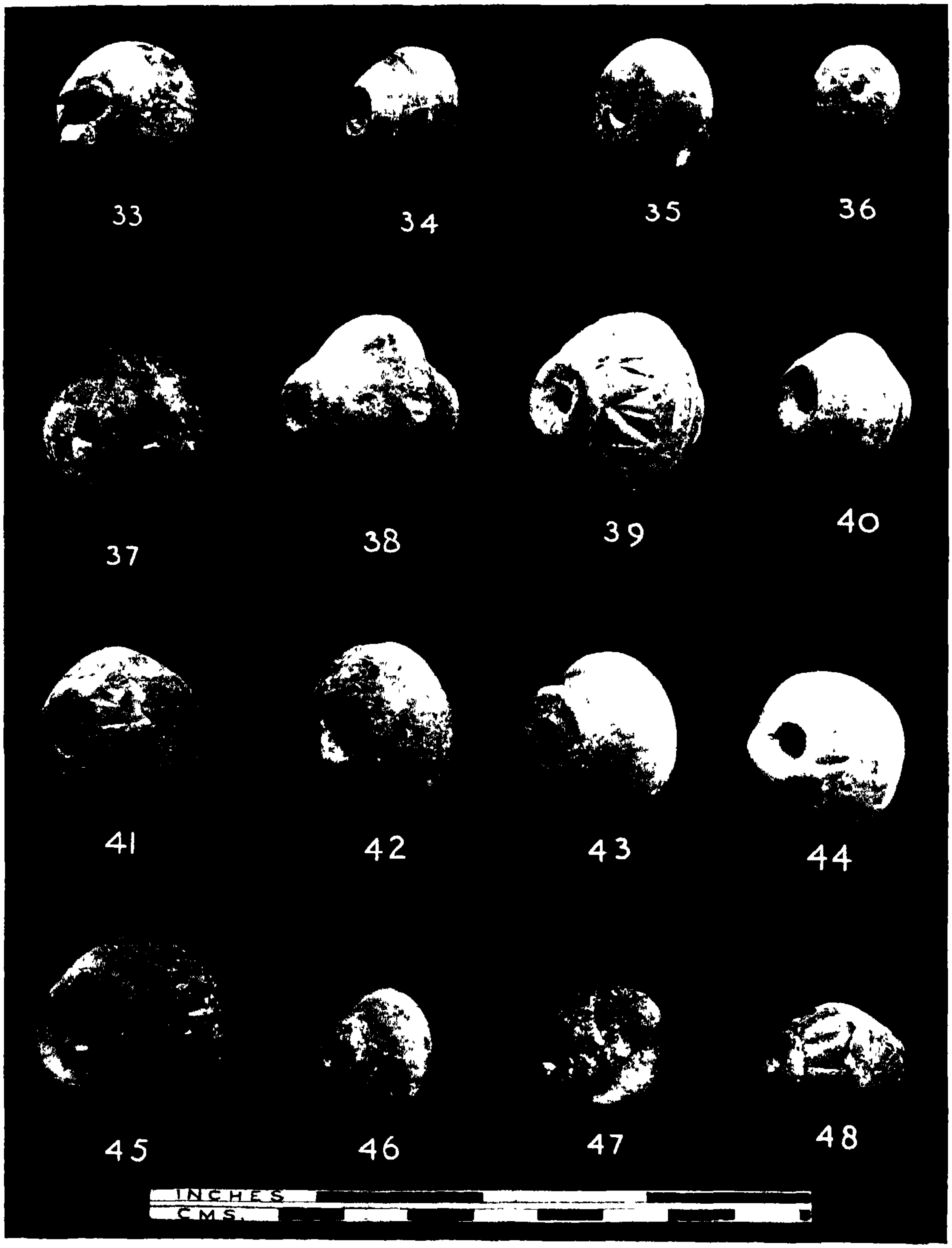
List of selected beads (pls. X and XI)

1. Carnelian: spherical. Between Phases I and II. (SKR. 470.)
2. Carnelian, etched: spherical. Phase II. (SKR. 62.)
3. Glass, grey opaque: spherical. Between Phases I and II. (SKR. 612.)
4. Glass, white iridescent: spheroid. Phase IV. (SKR. 14.)
5. Shell: disc barrel circular. Between Phases II and III. (SKR. 498.)
6. Shell: short barrel circular. Between Phases I and II. (SKR. 337.)
7. Shell: disc cylinder circular. Between Phases II and III. (SKR. 636.)
8. Shell: disc cylinder circular. Phase III. (SKR. 348.)
9. Glass, dark-yellow opaque: disc cylinder circular. Phase III. (SKR. 188.)
10. Glass, orange opaque: disc cylinder circular. Phase III. (SKR. 178.)
11. Glass, dark-yellow opaque: disc cylinder circular. Phase IV. (SKR. 89.)
12. Glass, dark-yellow opaque: disc cylinder circular. Phase IV. (SKR. 93.)
13. Agate: short cylinder circular. Unstratified. (SKR. 228.)
14. Shell: short cylinder circular. Between Phases I and II. (SKR. 777.)

[1] For collared beads in general and the distinction between groove-collared and lug-collared beads, see *Ancient India*, no. 2 (1946), p. 97.


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INCHES
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Beads



Beads

15. Agate: standard cylinder circular. Phase IV. (SKR. 344.)
16. Paste, white: standard cylinder roughly circular. Unstratified. (SKR. 195.)
17. Shell: long cylinder circular. Pre-bastion. (SKR. 683.)
18. Glass, light-green opaque: long cylinder circular. Between Phases I and II. (SKR. 350.)
19. Glass, light-green translucent: long cylinder hexagonal. Phase III. (SKR. 594.)
20. Glass, black opaque: cornerless cube. Phase I. (SKR. 512.)
21. Glass, dark-blue translucent: cornerless cube. Phase II. (SKR. 336.)
22. Carnelian: frog-bead. Post-bastion. (SKR. 684.)
23. Lapis-lazuli: cowrie-shaped pendant. Post-structural. (SKR. 544.)
24. Jasper, green: flat drop-pendant. Phase II. (SKR. 310.)
25. Shell: flat drop-pendant. Between Phases I and II. (SKR. 688.)
26. Shell: flat drop-pendant with chamfered edges. Between Phases II and III. (SKR. 719.)
27. Carnelian, etched: long barrel circular. Unstratified. (SKR. 217A.)
28. Crystalline quartz: long barrel circular. Phase IV. (SKR. 154.)
29. Glass, light-blue opaque: long barrel circular. Unstratified. (SKR. 474.)
30. Glass, purple, opaque: long barrel circular. Between Phases I and II. (SKR. 434.)
31. Carnelian: long barrel hexagonal. Between Phases I and II. (SKR. 552.)
32. Glass, grey opaque: groove-collared long barrel circular. Post-structural. (SKR. 660.)
33. Terracotta: pear-shaped. Between Phases I and II. (SKR. 334.)
34. Terracotta: pear-shaped. Between Phases I and II. (SKR. 395.)
35. Terracotta: pear-shaped. Between Phases I and II. (SKR. 418.)
36. Terracotta: ridgeless short bicone circular. Between Phases III and IV. (SKR. 291.)
37. Terracotta: ridged short bicone circular. From north-east bastion area. (SKR. 581.)
38. Terracotta: ridged standard concave bicone circular with inconspicuous collars. Phase IV. (SKR. 345.)
39. Terracotta: ridged standard concave bicone circular with inconspicuous collars. Decorated with incised pattern. Phase IV. (SKR. 345.)
40. Terracotta: ridged standard concave bicone circular with inconspicuous collars. Phase IV. (SKR. 460.)
41. Terracotta: ridgeless standard bicone circular. Pre-structural. (SKR. 415.)
42. Terracotta: ridgeless standard bicone circular. Between Phases II and III. (SKR. 556.)
43. Terracotta: convex-based *ghaṭa*-shaped. Phase III. (SKR. 473.)
44. Terracotta: flat-based *ghaṭa*-shaped. Between Phases I and II. (SKR. 351.)
45. Terracotta: flat-based *ghaṭa*-shaped. Between II and III. (SKR. 707.)
46. Terracotta: concave-based *ghaṭa*-shaped. Between Phases I and II. (SKR. 759.)
47. Terracotta: spherical with six knobs. Between Phases I and II. (SKR. 364.)
48. Terracotta: long barrel circular. Unstratified. (SKR. 646.)

B. TERRACOTTA FIGURINES[1]

The 1944-5 excavation yielded twenty-six human figurines and thirty-one animal figurines of terracotta.

With the exception of six hand-modelled examples, all human figurines are cast from single moulds and show either a flat or concave back with finger-impressions. Hand-modelled figurines are invariably crude and are normally confined to Phases III-IV (*c.* A.D. 50–150), though a hand-made specimen occurs in the pre-structural phase (*c.* 100–50 B.C.) as well. Cast figurines start in Phase I (second half of first century B.C.), are very common in Phases II-III (first century A.D.), and cease after Phase III. The favourite subject for the cast figures is a female standing in a frontal pose with arms pendant, nude and realistically modelled. Unfortunately, our figurines are all headless, but the few detached cast heads that have survived exhibit features of outlandish dress and foreign facial type. These figures and heads are comparable with some of the contemporary terracottas from Seleucia on the Tigris and represent the hybrid Parthian art of the period

[1] This section has been contributed by Mr. Krishna Deva.

100 B.C.-A.D. 200.[1] The stumpy figure of Kubera (No. 9 below), however, follows an indigenous art-tradition.

Of the animal figures which, with one exception, are all hand-modelled in the round, five are pierced with transverse holes through the body and were evidently meant to be mounted on wheels and pulled about by children as toys. They comprise a fragmentary quadruped and four birds, of which all but two are too fragmentary for illustration. Of the remaining animal figurines, one is a fragmentary bird and twenty-five represent quadrupeds. Of the latter, three may be identified as elephants, four as horses, six as bulls and one each as a ram and a monkey, while the remaining ten are too fragmentary for identification.

1. *Human figurines* (pls. XII-XIV)

(1) Head of a crude hand-modelled human figure in the round. From its mouth issues a long strip of clay which might have been intended for either a flute or a chin-beard. Nose indicated by pinched-up clay, eyes by rough incision and ears by exaggarated lugs, the right one being deeply bored. Coarse greyish-red fabric with grey core, painted with ocherous red slip. Pre-structural (first half of first century B.C.). (SKR. 695.)

(2) Torso of a human figure, cast in relief. Though there is no indication of sex, the delicate modelling of the flesh shows it to be a female. The figure stands facing with both arms pendent and left hand (summarily treated without articulating fingers) slightly raised at the side. Head, feet and right hand missing. Greyish-red fabric with light-red slip. Phase I. (SKR. 539.)

(3) Lower half of a standing female figure, cast in relief. Slender and delicately modelled. Light-red fabric. Phase I. (SKR. 540.)

(4) Torso of a cast figure, probably female, standing afcing. Feet, arms and portion above chest missing. A ridge across the waist indicates that the figure was draped. Greyish-red fabric, light-red slip. Phase I. (SKR. 316.)

(5) Torso of a cast figure, female, standing facing with arms pendent. Realistically modelled. Head, hands and portion below waist missing. Dull greyish-red fabric. From Pit 6 (between Phases I and II). (SKR. 406.)

(6) Complete torso similar to (5). Head, right arm, hands and feet missing. Light-red fabric, grey core. From Pit 6. (SKR. 790.)

(7) Fragmentary torso similar to (5), but heavier. Analogous to a better-preserved terracotta figure in the Taxila Museum (SK. 16–362, 4′ 9″ below surface). Hands and portions above waist and below knees missing. Moss-covered greyish fabric. From Pit 6. (SKR. 414.)

(8) Fragment of a plaque bearing a stamped figure of probably a dancer standing facing with the left hand akimbo and the right resting against the chest. The figure is draped in an undergarment, of which the folds are schematically indicated by oblique parallel lines. Light-red fabric. From Pit 6. (SKR. 538.)

(9) Lower half of a seated dwarfish figure, evidently Kubera holding a purse in the left hand. Right hand and portion above the loins missing. The figure is draped in an undergarment which is wound round the loins, with folded tassels pendent between the legs. Somewhat analogous figures representing Kubera are known from Kauśāmbī and Rājghāṭ.[2] Bright-red fabric. From Pit 6. (SKR. 537.)

(10) Worn-out cast head, female, with a fragmentary circular head-dress. Light-red fabric, grey core. Phase II. (SKR. 588.)

(11) Cast head wearing a conical cap and ear-studs. Dull greyish-red fabric. Between Phases II and III. (SKR. 755.) An analogous head was found in previous excavations at Sirkap (Sk. 13–142, 5′ 6″ below surface); heads with similar head-dress are also known from the Parthian city of Seleucia[3] on the Tigris from contemporary strata.

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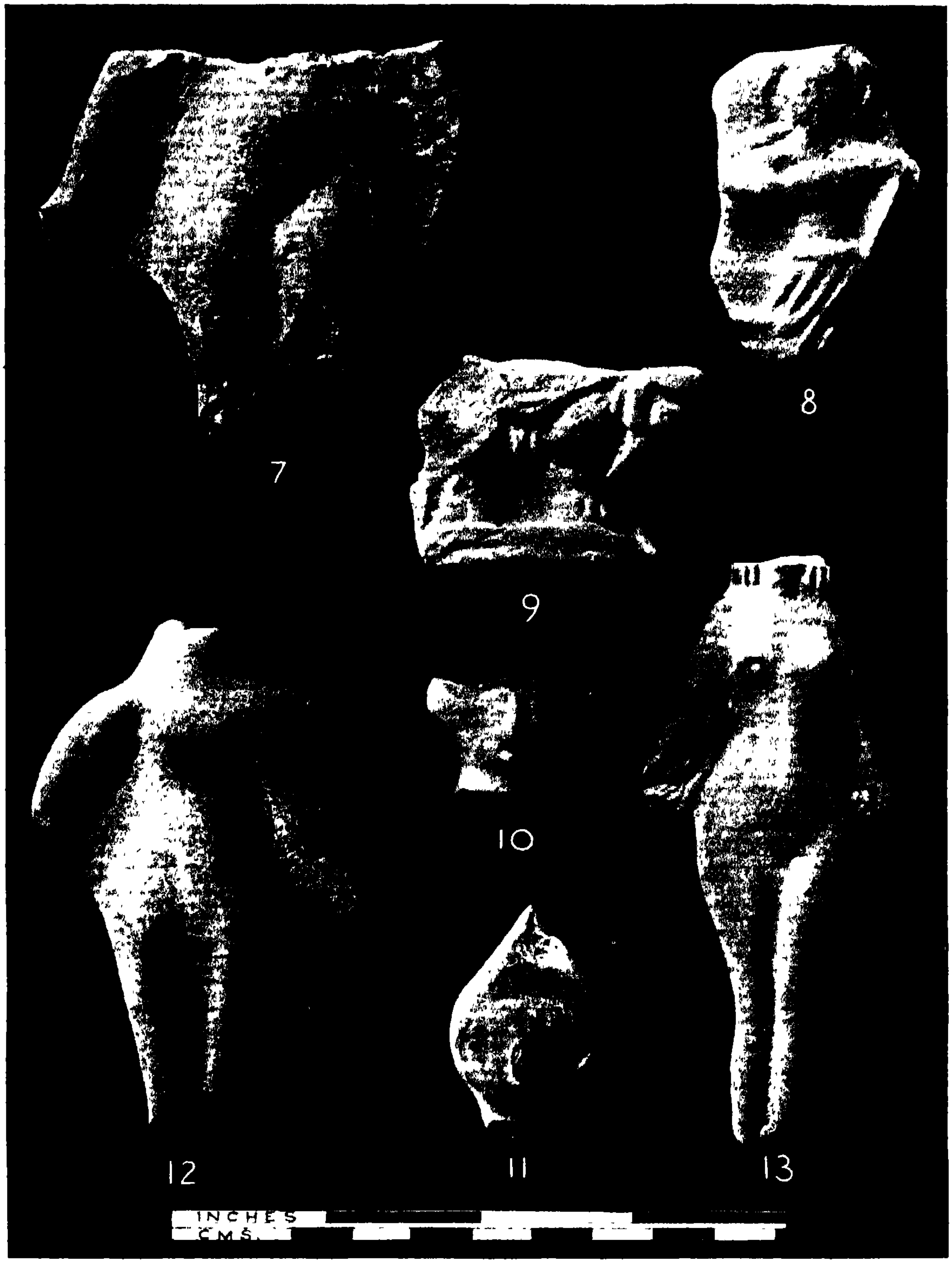
[1] W. Van Ingen, *Figurines from Seleucia on the Tigris* (University of Michigan, 1939), pl. II, no. 26*b*; pl. VI, no. 94*e*; pl. XLV, no. 687, etc.

[2] Specimens in the Allahabad Municipal Museum and Bhārat Kalā Bhawan, Benares.

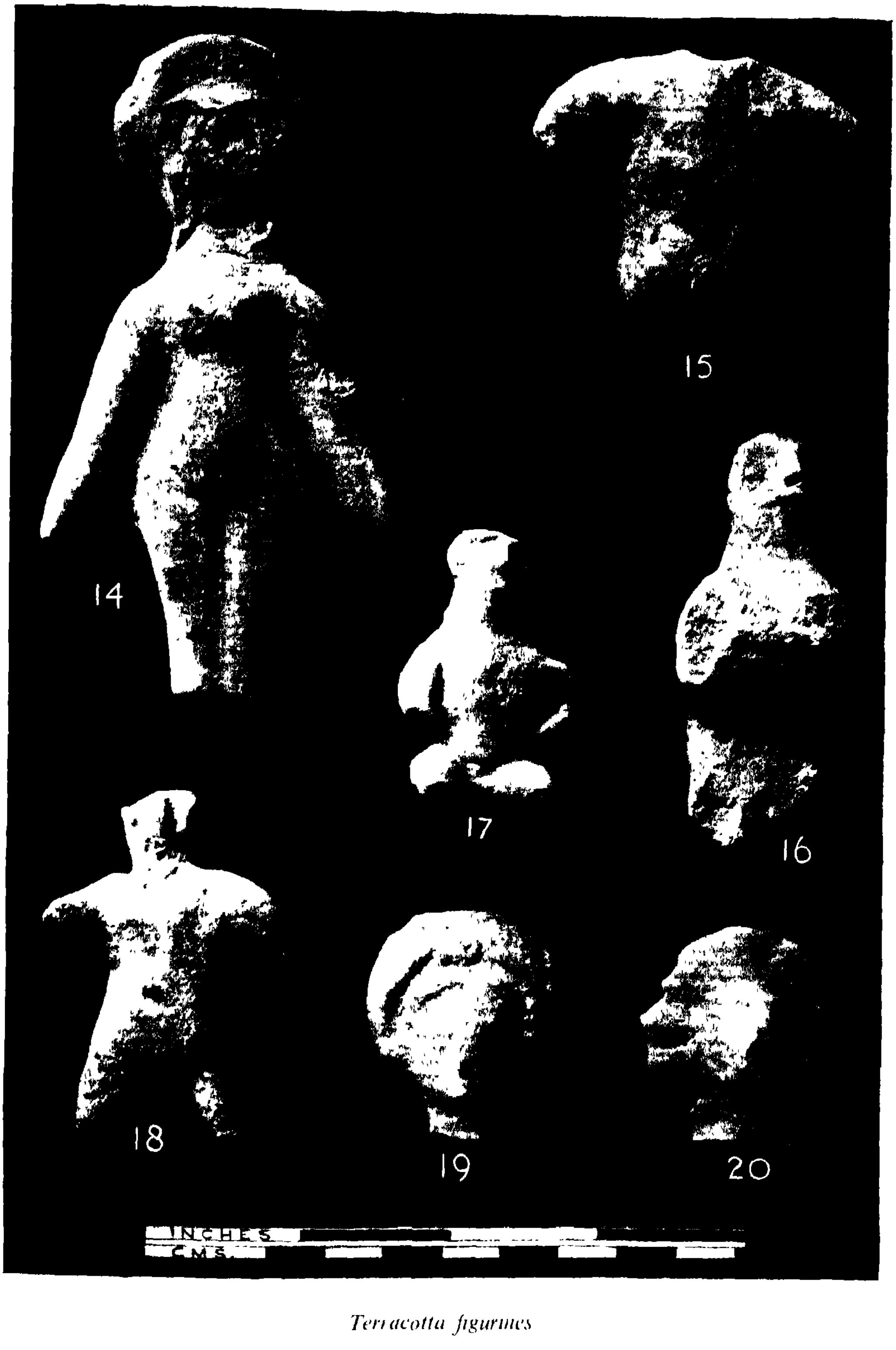
[3] Van Ingen, op. cit., pl. XLV, no. 678 ; pl. LXIV, no. 1098 ; pl. LXXXVIII, no. 1637.



Terracotta figurines



Terracotta figurines



Terracotta figurines

 To face plate XVI



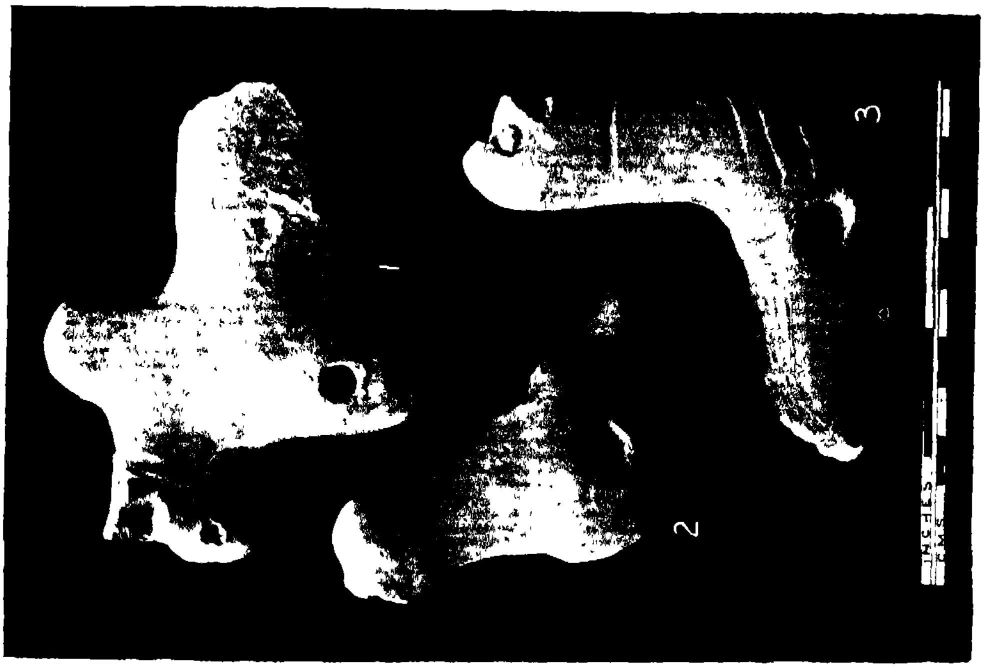
A. *Terracotta animals*



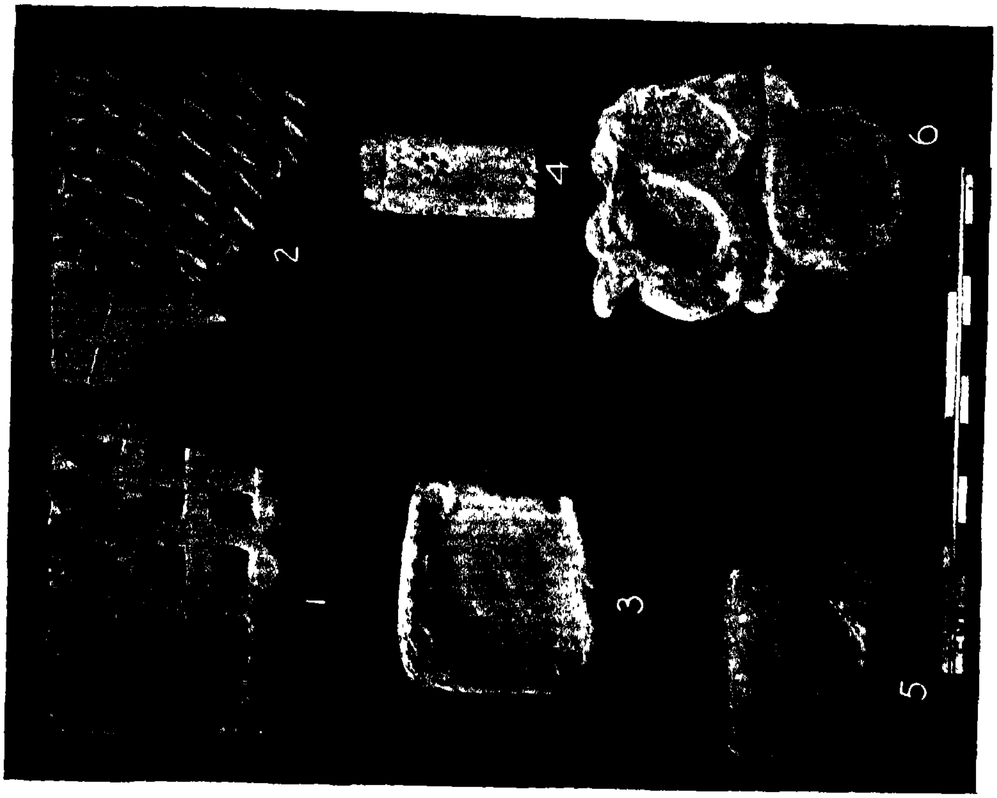
B. *Terracotta animals*

To face plate XV

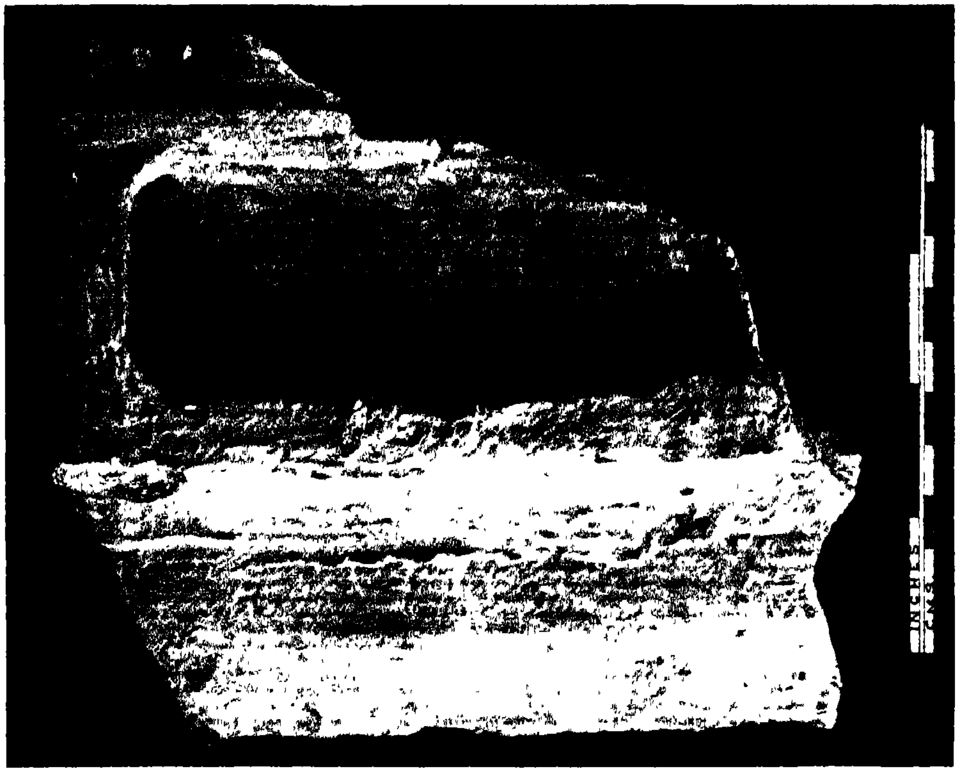
PLATE XVI



A. *Wheeled toys*



B. *Miscellaneous terracotta objects*



Terracotta object (probably votive tank)

(12) Female torso similar to but a little heavier than (5). Head, hands and feet missing. Light-red fabric. Between Phases II and III. (SKR. 265.)

(13) Exquisitely-modelled female figure, cast in bold relief. The figure stands facing with arms pendent, no attempt being made to depict details of the hand. The extant portion of head shows curls falling in bunches on the shoulders. Feet, right hand and a large portion of the head missing. Dull greyish-red fabric. Between Phases II and III. (SKR. 448.)

(14) Cast female figure standing facing with arms pendent, wearing a circular head-dress. Feet missing and face completely mutilated. Dull greyish-red fabric. Between Phases II and III. (SKR. 743.)

(15) Crude hand-modelled male torso in the round, finished at the waist and probably representing a rider. It is bored with two holes, one at the top to receive the head and another at the bottom to enable it to be fitted on to the back of an animal. Dull greyish-red fabric. Between Phases II and III. (SKR. 713.)

(16) Hand-modelled primitive figure of a child on all fours. Nose indicated by pinching up clay and mouth by incision. Greyish-red fabric, grey core. Phase III. (SKR. 304.)

(17) Primitive hand-made seated human figure with the left hand placed on the waist. Modelled in bare outlines. Dull-red fabric. Phase IV. (SKR. 170.)

(18) Primitive hand-made standing human figure, modelled in bare outlines. Greyish fabric. Phase IV. (SKR. 3.)

(19) Cast Hellenistic female head, wearing a wreath with a central jewel and ear-studs. Hair parted in the middle. Light-red fabric, red slip. Unstratified. (SKR. 425.)

(20) Cast head, probably female, with a circular head-dress and bird-like face. Light-red fabric. Unstratified. (SKR. 225.)

2. *Animal figurines* (pl. XV)

(1) Fragmentary elephant-figure, crudely modelled. Greyish fabric. Pre-structural. (SKR. 427.)

(2) Fore-part of a fairly well-modelled elephant-figure with tusks. Eyes represented by stamped lozenges with a circlet inside. Another pattern comprising uprights and dots stamped over the forehead and between the eyes. Light-red fabric. Contemporary with the north-eastern bastion. (SKR. 507.)

(3) Fore-part of horse-figurine with a conspicuous boss on forehead. Greyish-red fabric. Between Phases I and II. (SKR. 134.)

(4) Crude fragmentary horse-figurine. Greyish-red fabric. Between Phases III and IV. (SKR. 29.)

(5) Horse-figurine. Ears not depicted. Greyish-red fabric. Post-structural. (SKR. 2.)

(6) Right half of a cast hollow figurine of a humped bull, executed by the double-mould technique. Exquisitely modelled. Head and legs missing. Dull, greyish-red fabric. Between Phases I and II. (SKR. 455.)

(7) Crude humped-bull figurine. Muzzle broken off. Greyish-red fabric. Between Phases I and II. (SKR. 578.)

(8) Humped-bull figurine similar to above but with a well-preserved pointed muzzle. Dull greyish-red fabric. Between Phases I and II. (SKR. 295.)

(9) Headless figurine probably of a humped bull with an applied tail. Decorated below neck with an applied boss, punctured with dots, and with an incised geometric pattern resembling *svastika* on the right haunch. Light-red fabric, red slip. Unstratified. (SKR. 720.)

(10) Fragment of a monkey-figurine with a conspicuous tail which also serves as a prop to make it sit erect. Light-red fabric, grey core. Phase III. (SKR. 315.)

3. *Wheeled toys* (pl. XVI A)

(1) Humped-bull figurine intended to be a wheeled toy, as indicated by a transverse hole through its lower fore-part. Light-red fabric, red slip. Phase III. (SKR. 293.)

(2) Bird-figurine with a transverse hole through the body for the axle of wheels. Light-red fabric. Post-structural. (SKR. 729.)

(3) Bird-figurine possibly representing a cock with a hole similar to (2) but with a high neck, plumed head, punched circlets for eyes and a broad transverse incision for beak. Body decorated with grooved lines. Light-red fabric, red slip. Unstratified. (SKR. 218.)

C. MISCELLANEOUS TERRACOTTA OBJECTS (pls. XVI B and XVII)

These comprised the following, besides a few toy-wheels and thirty-five sling-balls or 'marbles' (not illustrated), the largest with a diameter of 1 inch and the smallest 9/16 inch:—

(1-2) Two small rectangular pedestals, one with regular rectangular perforations in three rows and the other with rows of zig-zag incisions filled with a yellow pigment. Pit 6 (between Phases I and II) and Pit 4 (post-structural) respectively. (SKR. 370 and 363.)

(3) A miniature votive tank. Post-structural. (SKR. 317.)

(4) Fragment of an oblong die, square in section, with an uncertain number of marks. Phase III. (SKR. 247.)

(5) Object shaped like a *ḍamaru* with a large hole running through the middle. Pit I (post-structural) of the north-east bastion area. (SKR. 513.)

(6) Object with a design of the *triratna* on both sides with a large hole running through. From north-east bastion area. (SKR. 582.)

(7) Fragmentary object with a compartment, probably an attachment of a votive tank. Pit 10 (between Phases II and III). (SKR. 393.) Pl. XVII.

D. METAL OBJECTS

Besides shapeless bits of iron and copper, small pieces of fashioned objects of these metals were found in large numbers in almost all strata. Their fragmentary condition, however, robs them of practical value. The objects found in the present excavations are naturally more limited in range than those found in previous excavations and now exhibited in the Archaeological Museum at Taxila, and only a few of the objects described below can claim special interest. Copper or bronze objects are much fewer in number than iron objects.

The following are noteworthy (pls. XVIII B and XIX):

(1) Fragment of a copper object, possibly a bracelet. Pre-structural. (SKR. 442.)

(2) Bronze ear-ring. Pre-structural. (SKR. 728.)

(3) Bronze finger-ring. From an undated layer. (SKR. 772.)

(4) Copper antimony-rod. Phase IV. (SKR. 533.)

(5) Copper antimony-rod. Pre-structural. (SKR. 674.)

(6) Bronze hair-pin with an ornamental head. Phase III. (SKR. 614.)

(7) Copper hair-pin with a broad head. Pre-structural. (SKR. 534)

(8) Copper hair-pin. Phase IV. (SKR. 461.)

(9) Copper pin with both ends pointed. Phase III. (SKR. 726.)

(10) Bronze rod with a chisel-end, probably a nail-cutter. From a layer between Phases III and IV. (SKR. 731.)

(11) Three rings of bronze attached to each other at their edges with leaf-design in between, probably forming the Buddhist *triratna*.[1] Phase IV. (SKR. 263.)

(12) Twisted copper needle. Pre-structural. (SKR. 736.)

(13) Nail with a large knob-head. From the north-east bastion area in a post-bastion deposit. (SKR. 702.)

(14) Fragment of a round nail with a large flat round head. Phase I. (SKR. 532.)

(15) One of two nails with hook-heads. Phase IV. (SKR. 209.)

(16) One of four long nails or staples, rectangular in section. From an undated layer. (SKR. 233.)

(17) Staple with a looped head. Pre-structural. (SKR. 708.)

(18) Circular piece of iron with a nail rivetted into it. Phase IV. (SKR. 146.)

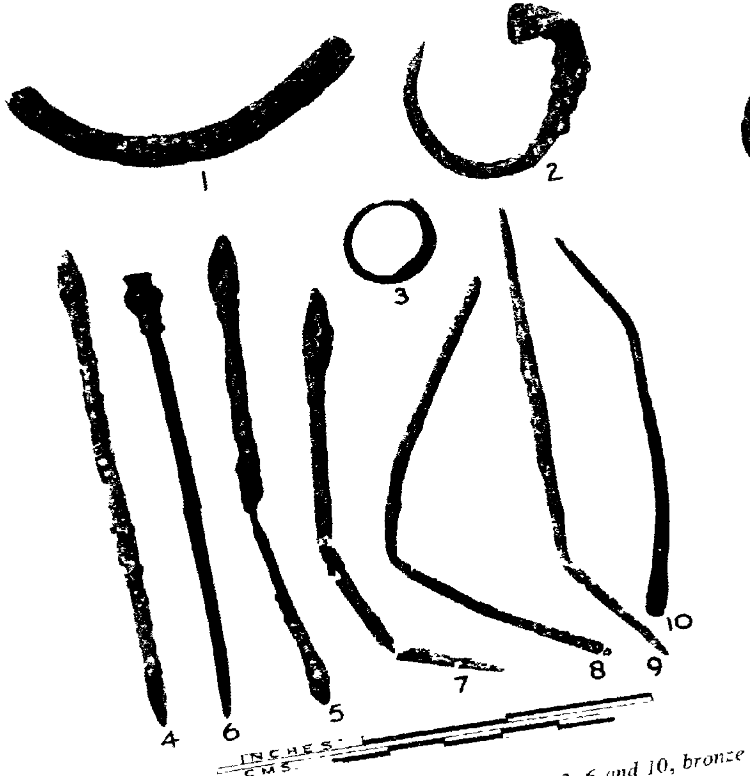
(19) Flat piece of iron with two nails, one flat and the other round with a flat head, rivetted into it. Pit 10 (between Phases II and III). (SKR. 420.)

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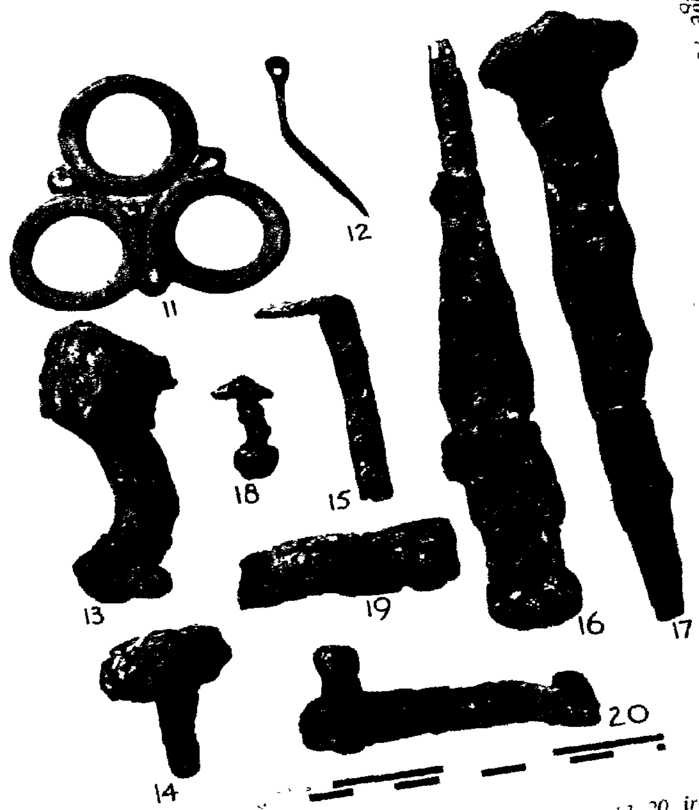
[1] Similar objects have been previously found at Sirkap. Cf. *Archaeological Survey of India, Annual Report*, 1912-13, pl. XXIV*c*, 2, for an exact analogue. Cf. also pl. XXIV*a*, 13 and *c*, 8.

To face page 78

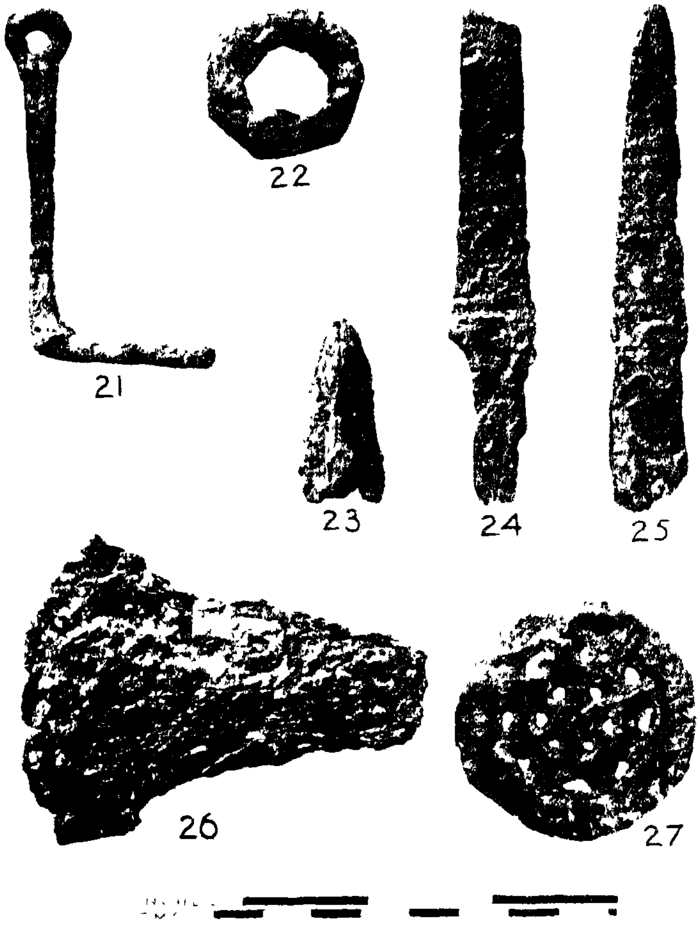
PLATE XVIII



A. *Metal objects: 1, 4-5, 7–9, copper; 2-3, 6 and 10, bronze*



B. *Metal objects: 11, bronze; 12, copper; 13–20, iron*



Iron objects

(20) One of two flat pieces of iron, each with a nail rivetted at one end. From a layer later than Phase I. (SKR. 558.)

(21) Iron key with three prongs at the end and a hole in the handle for suspension. Pit 6 (between Phases I and II). (SKR. 627.)

(22) Ring, probably a socket. From the north-east bastion area, inside city-wall. (SKR. 509.)

(23) Top portion of a three-edged arrow-head. Pit 6 (between Phases I and II). (SKR. 483.)

(24) A knife, sharper at one edge. Between Phases I and II. (SKR. 243.)

(25) A knife or razor. Phase IV. (SKR. 204.)

(26) Lower portion of an iron axe. Phase IV. (SKR. 104.)

(27) Slightly convex iron disc with perforations and two attached stands, one on each side, probably a toy utensil. Phase IV. (SKR. 113.)

E. Ornaments and toilet requisites

1. *Comb* (pl. XX)

The most important find of this class is an ivory comb (SKR. 227), found in Pit 1 (above, p. 48), and as such contemporary with Phase III (latter half of the first century A.D.). It consists of a half-elliptical ivory piece with a rectangular section and a slightly raised rim, and with 116 projecting teeth (broken) in the lower part. The piece is excellently carved on both sides. On one side appears the figure of a woman reclining on her right palm on a pillow with beaded borders. The face is unfortunately damaged. The hair is tied with a fillet at the front and is made into a plait loosely coiled at the back. A three-stringed necklace covers a part of the left breast and is partly hidden by the left arm. The forearms are adorned with bangles, the left one, which is completely visible, having seven of them indicated by incised lines. The upper part of the body is nude. Two natural folds of the skin (instead of the conventional three, *trivalī*) are indicated in the central portion of the body. The *sārī*, worn round the hips and covering the whole of the right leg and part of the left, is adorned with a series of three horizontal stripes occurring at regular intervals. The right leg is slightly bent backwards, while the left one is stretched practically straight. There are anklets on both legs.

The portion of the field not occupied by the body is filled up with rows of short notches representing an ornamental cushion. Near the head is seated a dwarfish male figure in loin-cloth and with folded legs, presumably a slave-attendant.

The other side of the comb is divided into four zones by three vertical lines. The left zone is occupied by a pouncing lion rather crudely depicted. The second zone contains an ornamental design of an uncertain object, possibly an altar, or the front of a building (?). The third is occupied by a treading elephant, its trunk, head and body decorated with notches possibly representing trappings. The spaces in front of the trunk of the elephant, between its forelegs and over its back are filled with rosettes. An inverted conch-shell occupies the fourth zone.

The sensuous pose and features of the lady are foreign to the contemporary art of Gandhāra. On the other hand, the petal-shaped eyes, full bust, attenuated waist and exaggerated hips are conventional features in Indian literature and in the indigenous plastic art of India. Mathurā, by virtue of its proximity and political and cultural contacts with the north-west, naturally suggests itself as a possible source for the comb, though it must be added that the stone female images there, for example those of the Bhūtesar *yakshīs*,[1] present only a partial resemblance in the modelling of the female body, even making allowance for the differences of material and technique. A general resemblance to the Amarāvatī

[1] J. Ph. Vogel, *La Sculpture de Mathurā* (Paris and Brussels, 1930), pl. XIX.

and Nāgārjunikoṇḍa sculptures is also fairly pronounced, though there are differences in drapery and other details. But the closest affinity is with the ivory plaques found at Begrām, 50 miles north of Kabul, where M. Hackin in 1937 and 1939 unearthed a unique cache of these objects in two rooms of a building generally identified as a palace. The objects date from the first to the third centuries A.D. and are therefore of a comparable period. The excavator of Begrām has already noticed the influence of the Indian, and particularly the Mathurā, art-tradition on the plaques.[1] A fragmentary comb is represented in this collection (pl. LXXVII, fig. 237 of Hackin's publication), but the details do not tally. On the other hand, the modelling of the comb-figure is comparable with that in Hackin's pl. LV, fig. 155. The notches of the ornamental cushion are remarkably similar to the notches denoting the same object in Hackin's pl. LVII, fig. 175. The lion and elephant, occurring on the reverse of the comb, form popular motifs in the Begrām series (pl. XLVIII, fig. 124; pl. LVII, fig. 171; pl. LXII, fig. 186, etc.), though the conch is unknown there. On the whole, a family-likeness between the Sirkap comb and the Begrām plaques is unmistakable and suggests a common Indian origin, possibly in the Mathurā region.

2. *Bracelets*

The nineteen glass bangles from the site are mostly of green or blue colour, generally opaque and rarely translucent, found with a white chalky coating, being the result of disintegration of the glass due to atmospheric and subsoil conditions. They occur at all levels and are generally of a double-convex or single-convex section with blunted edges and no decoration.

Next in order of frequency as a bangle-making material comes shell. Shell bangles are sawn out of the convex conch-shells, and have an oblique section. They come from all layers except the pre-structural ones and the ones contemporary with Phase I. This may be only accidental, as Pit 6, between Phases I and II, yielded some specimens.

Only three ivory bangles, all with oblong section, were found. These were from a layer between Phases III and IV, from Pit 6 (between Phases I and II) and from a layer between Phases II and III.

Two bangles of chalky white paste, one of plano-convex and the other of double-convex section were recovered but are not illustrated.

The following are selected for illustration (pl. XXI):

(1) Opaque glass bangle of dull-yellow colour with red patches on outer surface. Unstratified. (SKR. 283.)

(2) Thin green glass bangle of cable-design with a circular section. From an undated layer. (SKR. 390.)

(3-4) Opaque light-green glass bangles. From Pit 6 (between Phases I and II). (SKR. 412 and 520*a*.)

(5) Translucent greenish glass bangle. From Pit. 13 (between Phases II and III). (SKR. 502.)

(6) Opaque blue glass bangle. Unstratified. (SKR. 173.)

(7) Shell bangle. Phase III. (SKR. 55.)

(8) Shell bangle. Phase IV. (SKR. 20.)

(9) Shell bangle. From Pit 13 (between Phases II and III). (SKR. 436.)

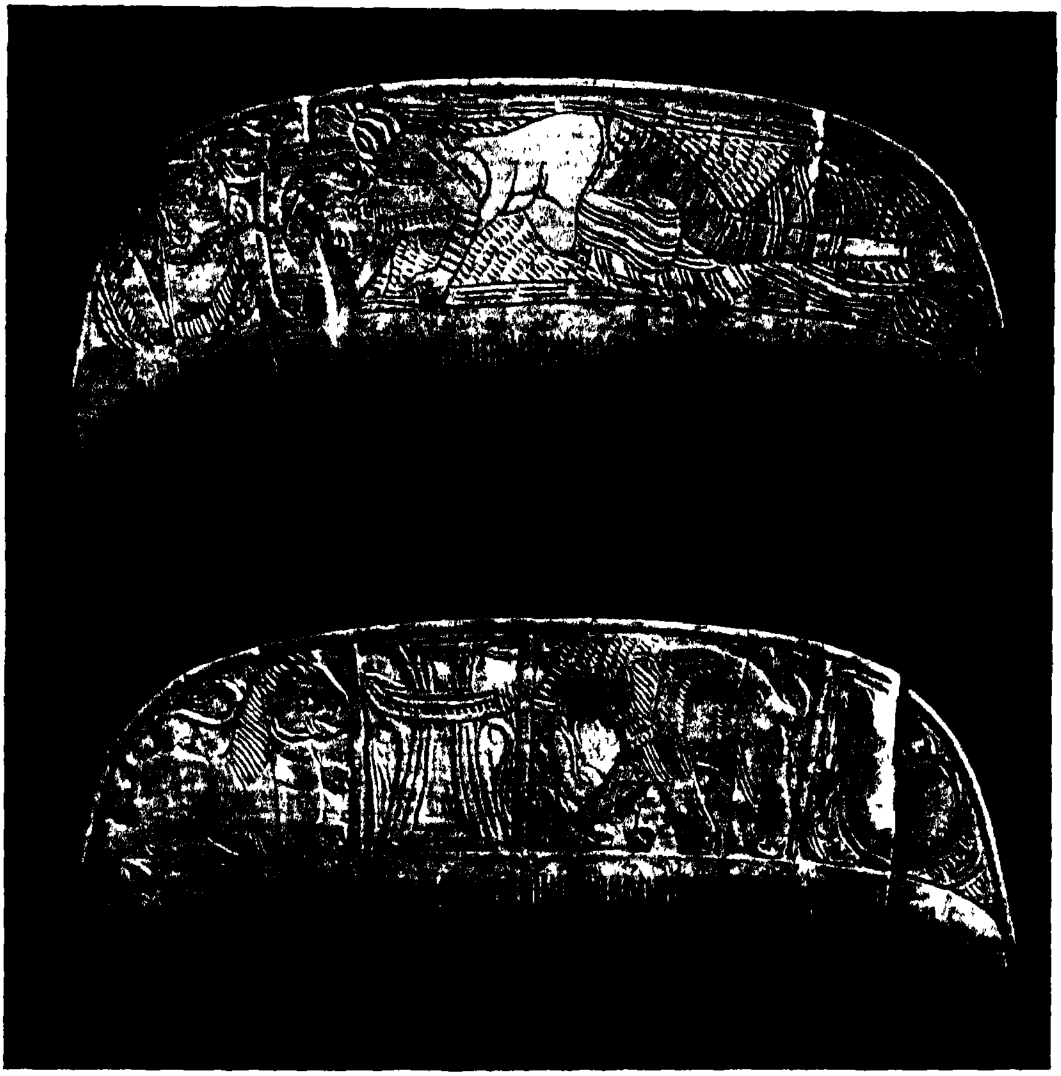
(10) Ivory bangle, more than half-an-inch wide. From a layer between Phases III and IV. (SKR. 46.)

F. Other bone and ivory objects (pl. XXI)

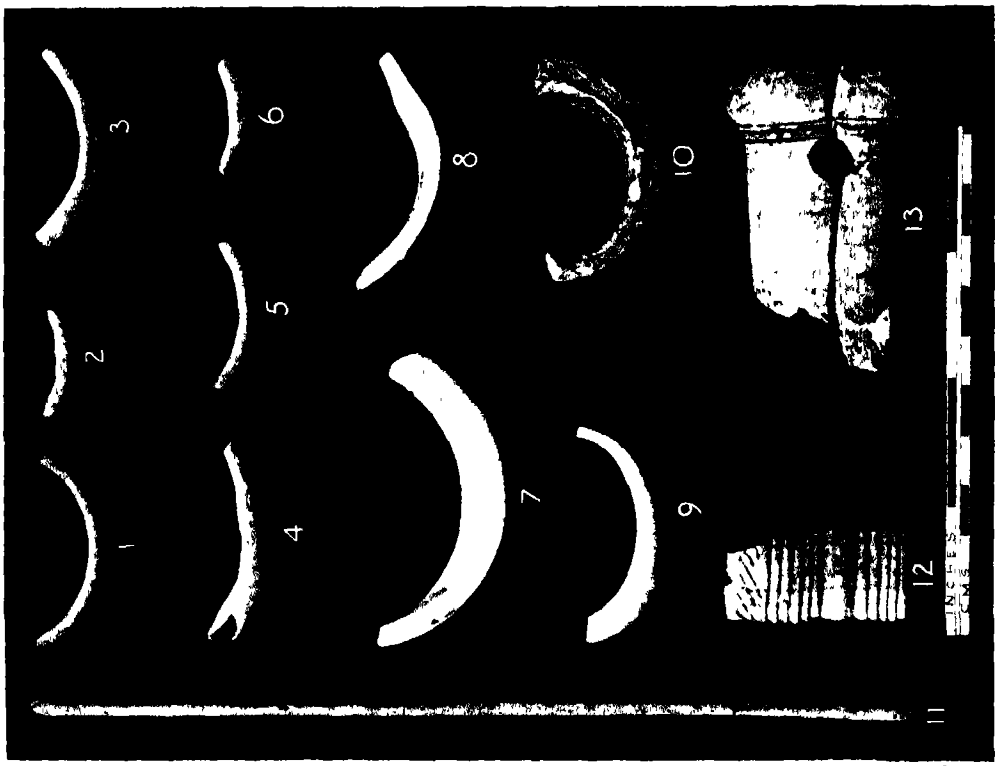
(11) Well-polished bone rod with clubbed ends. From a post-bastion layer in the north-east bastion area. (SKR. 704.)

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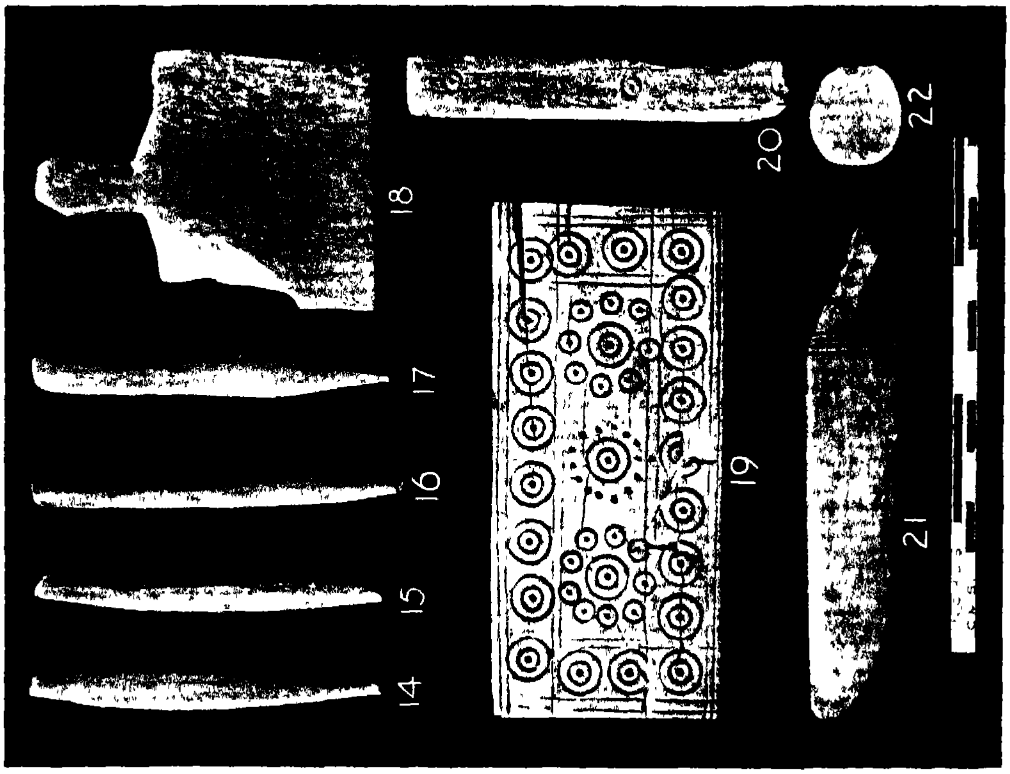
[1] J. Hackin, 'Recherches archéologiques á Begrām', *Mémoires de la Délégation Archéologique Française en Afghanistan*, IX (Paris, 1939), pp. 24-25.



Ivory comb. $\frac{1}{1}$



A. *Bracelets and miscellaneous objects: 1–6, glass; 7–9, shell; 10 and 12, ivory; 11 and 13, bone*



B. *Miscellaneous objects: 14–20 and 22, bone; 21, ivory*

(12) Fragmentary ivory object decorated with incised designs. From an undated deposit. (SKR. 579.)
(13) Fragmentary bone object probably a mirror-handle, with elliptical section. Phase III. (SKR. 409.)
(14) Bone stylus. Phase I. (SKR. 275.)
(15) Bone stylus. From an undated layer. (SKR. 258.)
(16) Polished bone awl. Phase II. (SKR. 640.)
(17) Bone awl. Unstratified. (SKR. 366.)
(18) Square slab of bone, oblong in section, with a projecting tongue at the top. Pre-structural. (SKR. 368.)
(19) Rectangular slab, oblong in section. The edge of one of the longer sides is grooved and contains four blind holes; the other edges are plain, the longer one having three holes and the shorter ones two each. One face of the slab is bordered all round by an incised row of two concentric circles enclosed within double lines. The centre contains a similar circle enclosed by dots and is flanked on each side by circles, also similar but enclosed by smaller single circles. The purpose of the object is uncertain. From a layer between Phases I and II. (SKR. 318.)
(20) Oblong bone die, square in section, with one, two, three and four marks respectively on the four faces. Post-structural. (SKR. 1.)
(21) Ivory knife, wedge-shaped in section, from the post-structural Pit 4. (SKR. 297.)
(22) Small circular disc, tabular in section, from Phase IV. (SKR. 95.)

G. Coins

The present excavation yielded seven punch-marked coins, fifteen coins of the Local Taxila type, five coins of Azes (*c.* 57 B.C.) one coin of either Azes or Azilises, one coin of Kujūla Kadphises (*c.* A.D. 40) and one coin of Huvishka (second century A.D.). Their importance in fixing the chronology of the site has been discussed above (p. 45). Below is a list of selected coins.

1. *Punch-marked*

(1) (SKR. 753.) Silver; ·1″; round; 2·0062 grains; Phase I.
Obv. Symbol consisting of a central pellet with a pellet each at the top and bottom and a convex arch on either side.
Rev. Plain.

(2) (SKR. 568*a*.) Silver; ·5″; square; 42·2065 grains; in an early deposit near north-east bastion.
Obv. and *rev.* Same as Allan's Class 2, Group I, var. *a.*[1]

(3) (SKR. 568*b*.) Silver; ·65″; square; 42·5152 grains; in an early deposit near north-east bastion.
Obv. Same as no. 2 above.
Rev. Same as no. 2, with some indistinct additional symbols.

(4) (SKR. 570.) Silver; ·55″; round; 43·9812 grains; in an early deposit near north-east bastion.
Obv. Same as no. 663 of Bhattacharya.[2]
Rev. Bhattacharya's symbol no. 17 (pl. II) and two additional indistinct symbols.

(5) (SKR. 564.) Silver; ·55″; round; 48·9194 grains; in an early deposit near north-east bastion.
Obv. Same as Allan's Class 2, Group VII, var. *a*.
Rev. Same as above with an additional indistinct symbol.

(6) (SKR. 668.) Silver; ·5″; round; 17·4382 grains; post-bastion.
Obv. and *rev.* indistinct. The coin contains two holes and was evidently used as a pendant.

(7) (SKR. 701.) Silver-plated copper; ·55″; square; 47·9935 grains; unstratified.
Obv. Solar and other indistinct symbols.
Rev. Indistinct.

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[1] J. Allan, *Catalogue of the Coins of Ancient India* (London, 1936).

[2] P. N. Bhattacharya, 'A Hoard of Punch-marked Coins from Purnea', *Mem. Arch. Surv. Ind.*, no. 62 (Delhi, 1940), p. 34.

2. *Local Taxila*

(1) (SKR. 617.) Æ; ·6″; round; 21 grains; pre-structural.
Obv. Three arches with crescent.
Rev. Plain.

(2) (SKR. 700.) Æ; ·6″; round; 34 grains; pre-structural.
Obv. Bull to left and taurine above.
Rev. Plain.

(3) (SKR. 706.) Æ; ·6″; round; 31 grains; pre-structural.
Obv. Three arches with crescent and taurine.
Rev. Indistinct.
Cf. Allan, p. 232, no. 149.

(4) (SKR. 735.) Æ; broken; 5 grains; pre-structural.
Obv. Elephant to left.
Rev. Indistinct.
Cf. Allan, p. 227, no. 107; p. 234, no. 157, etc.

(5) (SKR. 727.) Æ; ·8″; round; 19 grains; pre-structural.
Obv. Three arches with crescent.
Rev. Anti-clockwise *svastika.*
Cf. Allan, p. 233, no. 152.

(6) (SKR. 723.) Æ; ·65″; square; 141 grains; pre-structural.
Obv. Elephant with three arches with crescent above.
Rev. Square incuse with lion to left, taurine below and *svastika* above.
Cf. Allan, p. 223, no. 73.

(7) (SKR. 669.) Æ; ·7″; round; 10 grains; pre-bastion.
Obv. Lion to left.
Rev. Plain.

(8) (SKR. 678.) Æ; ·7″; round; 28 grains; pre-bastion.
Obv. Three arches with crescent.
Rev. Indistinct.

(9) (SKR. 739.) Æ; ·75″; round; 27 grains; contemporary with north-east bastion.
Obv. Taurine.
Rev. Indistinct.

(10) (SKR. 696.) Æ; ·7″; square; 102 grains; contemporary with north-east bastion.
Obv. Elephant to right.
Rev. Square incuse with indistinct details.
May be similar to No. 13 below.

(11) (SKR. 268.) Æ; ·6″; round; 24 grains; Phase I.
Obv. Three arches with crescent and taurine.
Rev. Indistinct, probably same as obv.
Cf. Allan, p. 232, no. 149.

(12) (SKR. 416.) Æ; ·5″; round; 18 grains; between Phases I and II.
Obv. Three arches with crescent and 'hut' or *go* symbol.
Rev. 'Hut' or *go* symbol.
A variant of Allan, p. 231, no. 143.

(13) (SKR. 680.) Æ; ·7″; square; 161 grains; post-bastion.
Obv. Elephant to right.
Rev. Square incuse with lion to left; anti-clockwise *svastika* above and taurine on left.
A variant of no. 6 above.

(14) (SKR. 691.) Æ; ·7″; round; 28 grains; post-bastion.
Obv. Lion to left; *svastika* above and taurine on left.
Rev. Plain.
Cf. Allan, p. 234, no. 161.

(15) (SKR. 679.) Æ; ·75″; square; 85 grains ; post-bastion.
Obv. and *rev.* Same as no. 13 above.

3. *Azes*

(1) (SKR. 698.) Æ; ·8″; round; 52 grains; Phase I.
Obv. Indistinct.
Rev. Standing Hermes; to right Whitehead's[1] monogram No. 24; to left indistinct Kharoshṭhī monogram.
Cf. Whitehead, pl. XI, no. 217.
(2) (SKR. 613.) Æ; ·9″; round; 59 grains; between Phases I and II (Pit 6, above, p. 47).
Obv. King seated cross-legged to front.
Rev. Standing Hermes.
Cf. Whitehead, pl. XI, no. 195.
(3) (SKR. 284.) Æ; ·95″; round; 122 grains; Phase III.
Obv. Same as No. 2 above.
Rev. Standing Hermes. Traces of Kharoshṭhī legend *sa raja . . .*
(4) (SKR. 331.) Æ; 1″; round; 196 grains; Phase IV.
Obv. Elephant walking to right; traces of Greek legend around: AZOY below elephant.
Rev. Humped bull to right; Kharoshṭhī legend around: *maharajasa rajarajasa mahatasa Ayasa*; Kharoshṭhī *a* and indistinct monogram.
Cf. Whitehead, p. 127, no. 283.
(5) (SKR. 287.) Silver; ·5″; round; 20 grains; post-structural (Pit No. 4, above, p. 48).
Obv. Mounted king.
Rev. Zeus Nikephoros. Traces of Kharoshṭhī legend.
Cf. Whitehead, p. 107, no. 66.

4. *Azes or Azilises*

(1) (SKR. 452.) Æ; 5″; round; 27 grains; Phase IV.
Obv. Mounted king.
Rev. Pallas standing to left.

5. *Kujūla Kadphises*

(1) (SKR. 619.) Æ; ·9″; round; 100 grains; between Phases II and III (Pit 10, above, p. 47).
Obv. Bust to right; indistinct Greek legend.
Rev. Standing Herakles; Kharoshṭhī legend *Kujūla Ka . . .*
Cf. Whitehead, pl. XVIII, no. 8.

6. *Huvishka*

(1) (SKR. 47.) Æ; ·8″; round; 73 grains; Phase IV.
Obv. King seated cross-legged.
Rev. Moon-god to left.
Cf. Whitehead, pl. XIX, no. 194.

POSTSCRIPT

The two cities of Sirkap (see p. 43, fig. 1)

At the risk of iteration, I add a summary review of the evidence at present available as to the chronology of Taxila II (Sirkap) although, until the earlier excavations are published in detail, this chronology must lack definition.

At one or two points in the northern part of the walled city, Marshall dug down in small areas to the natural soil. He found 'remains belonging to six successive periods of habitation . . . . . represented by clearly defined foundations of rubble masonry, with layers of débris above and below them. Of these successive strata of buildings, the fifth and

[1] R. B. Whitehead, *Catalogue of Coins in the Punjab Museum*, I (Oxford, 1914).

sixth from the top belong to the period of Greek rule at Taxila (*c.* 190–85 B.C.) . . . . . The fourth city belongs to the time of the early Śaka kings, probably of Azes I, many of whose coins were found buried in small hoards beneath the house floors. It was this same Śaka king who was responsible for contracting the city's perimeter and substituting well-built walls and bastions of solid stone in place of the older fortifications of mud, and was responsible also for the symmetrical lay-out of streets and lanes which continued to distinguish it to the end of its history. The third city from the top, which is less clearly defined than the others, is also referable to the period of the Śakas. The second city dates from Parthian times in the first half of the first century A.D., and is characterized by the use of diaper masonry along with the ordinary local rubble. It is to this city that most of the structures exposed in Sirkap belong'.[1]

In the light of the extensive trench described by Mr. Ghosh in the present report, Marshall's summary appears to require some modification. That trench, be it recalled, was sited in a central portion of the walled city, and made it clear that hereabouts the only occupation prior to the fourth city of Marshall's series consisted of a few pits cut into the natural soil. Otherwise, Marshall's fifth and sixth periods are absent; systematic occupation begins here with the construction of the city-wall *c.* 50 B.C. by an early Śaka (or, as others prefer, Parthian) king after the end of the Indo-Greek régime. Marshall speaks of this episode as a 'contracting' of the city's former perimeter, on the double assumption that the latter had previously extended northwards to the rampart now represented by the *Kachchā Koṭ*, some 500 yards north of the northern stone wall, and that it had, for the rest, been approximately co-extensive with the newly walled area.

It is now apparent that the innovations of *c.* 50 B.C. involved, not a contraction of the former city, but a shifting of its main body further south, to include for the first time the high ground of the Hathiāl spur. In actual acreage this process probably involved a considerable enlargement of the enclosure. The northern part of the new walled area overlay the southern part of the previous town (see fig. 1), which is represented under the present northern stone defences by Marshall's fifth and sixth layers and by sundry house-walls and drains associated with them. But, as we now see, the southern limit of this earlier (*Kachchā Koṭ*) town had not extended beyond a point lying somewhere between the northern stone wall and the recent trench, i.e. somewhere north of the 'palace' area. There are thus *two* successive Sirkaps, essentially distinct from each other: (i) an Indo-Greek city of the second century B.C. situated entirely on the river-plain and fortified with mud (brick?) defences, of which the *Kachchā Koṭ* is a fragment; and (ii) a Śaka or early Parthian city of the first century B.C. centred further south in order to comprise the impending ridges of Hathiāl. This change is a significant one. It may have been a result of experience acquired by the new overlords, Śaka or Parthian, during their attack on the old city, when they may be thought to have found the Hathiāl spur useful as a base. In any event, it transformed Taxila for the first time into a city of the conventional Graeco-Asiatic type, with a privileged Upper City or acropolis and a Lower City where the bourgeoisie lived and traded. And incidentally, as a rival to Marshall's 'palace' in the Lower City may be opposed an alternative 'palace', the so-called *Mahal*, excavated subsequently by him amongst the ridges of the Upper City[2] (see general plan, pl. XXII). In many aspects there is still much for the new Archaeological Department of Pakistan to discover in and regarding Sirkap.

R. E. M. W.

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[1] J. Marshall, *Guide to Taxila* (3rd ed., 1936), p. 99.

[2] *An. Rep. A.S.I.*, 1923-24, p. 66.

IRAN AND INDIA IN PRE-ISLAMIC TIMES: A LECTURE

By R. E. M. Wheeler

With an Appendix by Stuart Piggott

In November 1945 the Government of India sent a small 'cultural mission' to Iran at the invitation of the Iranian Government. The present lecture was prepared by the Director General of Archaeology in India, as head of the mission, for an audience in Tehran, and surveys briefly some of the pre-Islamic problems in which Iranian and Indian archaeologists might usefully co-operate. For the most part it necessarily covers ground familiar to Indian readers, but it re-states certain of the problems and may help to place some of the detailed studies which have appeared in Ancient India *in a wider perspective.*

THE Iranian plateau long constituted a main artery in the circulation of Asiatic cultures, and India more than most regions has received, if not always blest, vitalizing influences from that direction. Her earliest civilization, that of the Indus Valley in the third millennium B.C., and the minor cultures of that epoch in north-western India show significant though at present ill-defined affinities with certain Iranian cultures of the same general period. Later, it is to be supposed that the much-canvassed 'Aryan invasions' left a common cultural imprint, however slight materially, upon eastern Iran and north-western India. Later again, the extension of the Persian Empire into India after 518 B.C. represents a political if not an archaeological overlap. And when Alexander the Great, as self-made heir to the Persian Empire, entered India in 326 B.C., he was not merely opening the way to Greek influences in the East but was confirming the traditional link between India and Iran; with the result that for centuries after his time Indian architecture was permeated with Iranian forms. These in turn were superseded or supplemented by new Iranian and western Asiatic formulae when the Muslim invaders swept into northern India from the twelfth century onwards. All these matters are, in outline, common knowledge. Their details are often in doubt, and without their details their significance is subject to misunderstanding. My lecture, although itself in general terms, is a plea for that detailed study, both in India and in Iran, upon which alone a proper understanding can be based.

*　*　*　*　*　*

It is fitting that we should begin with geography. Recently, as an official envoy it was suggested to me that I should fly from India to Tehran. As an archaeologist I chose, more aptly I think, to travel overland through the passes of Baluchistan. Alternatively, I might have re-attempted one or other of the ancient routes through northern Afghanistan, or the tedious coast-route of Makrān, retracing the tracks of Alexander or of the Persians, Scythians, Parthians, Mongols and other such folk as have in varying degrees linked India from time to time with the heart of Asia—not forgetting a certain eminent Nādir S̲h̲āh, encumbered with a peacock throne that did not belong to him. Indeed, we may suspect that this new arterial traffic of the air, which brings great cities like Tehran, Delhi, London and New York to within a few hours of one another, has at the same time given an added remoteness to vast and ancient regions of the world; so that, whilst a few human celestials flutter like spirits or super-butterflies at the speed of sound from flower to urban flower,

We have then a well-known geographical picture of an India mainly barred from the north but accessible by arduous though passable routes both from the southern fringe of the Iranian plateau on the west and from northern Iran and Turkestan on the north-west. I now, in the remainder of this lecture, propose to consider and compare two episodes in the spread of cultural elements within this vast area. One of these episodes is prehistoric, the other early historic; both of them link north-western India with Iran, and both bear testimony alike to the penetration of Iranian cultures and to the essential originality of their Indian recipients. In the course of many invasions, the civilizations of northern India have absorbed much, but they have always transmuted and Indianized that which they have absorbed. The two episodes chosen to illustrate this process are taken, first, from the third and second millennia B.C., and, secondly, from the fourth and third centuries B.C. The one concerns the Bronze Age and earlier cultures of Iran and the partially contemporary upgrowth of the earliest known civilization of India; the other concerns the break-up of the great Persian Empire of the Achaemenians and its cultural influence upon the beginnings of historic India.

It is now twenty-five years since Sir John Marshall and his colleagues of the Archaeological Survey of India first revealed the remarkable civilization of the Indus Valley at Harappā in the Punjab and at the still more celebrated site of Mohenjo-daro in Sind. The discovery was followed by that of other towns and villages of the same 'Harappā' culture in the Indus region, until today not less than thirty-seven such sites are known in the thousand-mile tract between the Arabian Sea and the foot of the Simla hills. Stray contacts between the Indus Valley civilization and dated sites in Mesopotamia show that the former was flourishing about 2300 B.C., but how much earlier it began and how much later it ended are still largely guess-work. My own estimate for the duration of the civilization as at present known, namely, *c.* 2500–1500 B.C., has been discussed elsewhere.[1]

Both before and since the discovery of Harappā and Mohenjo-daro intermittent excavations have been carried out on prehistoric sites in Iran, notably by French and American expeditions. Relatively to the size and potentiality of the country, these explorations, valuable though they be, cannot yet be called extensive or conclusive: they have indeed opened up as many problems as they have solved. It is earnestly to be hoped that Iranian scholars will benefit by the experience of these expeditions and will themselves enter the field with skill and determination. No part of Asia would better repay systematic archaeological research.

Up-to-date, the investigations have revealed a diverse series of cultures dating back to the Stone Age (perhaps the fifth millennium B.C.) and extending through the so-called Copper or Chalcolithic Age (approximately the fourth millennium) into the Bronze Age of the third millennium and later. An American scholar, Dr. Donald McCown, has attempted bravely to bring order into this miscellany,[2] and has grouped these cultures broadly into two series. The grouping is based primarily upon the distribution of the painted pottery which is characteristic of all the sites in question; and, in particular, upon the alternative use of a red background or of a yellow (buff) background for the painted designs. Many sites have yielded fragments of both colourings, but in every case one or the other tends

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[1] *Ancient India*, no. 3 (1947), pp. 78ff.

[2] D. E. McCown, *The Comparative Stratigraphy of Early Iran* (Oriental Inst. of the Univ. of Chicago, 1942); and 'The Material Culture of Early Iran', *Journ. of Near Eastern Studies*, I, no. 4 (Chicago, 1942). More recently, in prefatory remarks to an important paper by E. J. Ross on 'A Chalcolithic Site in Northern Baluchistan', Dr. McCown has expressed a generally similar view to that outlined in the present lecture as to the possible relationship of the Iranian plateau-cultures with the flanking riverine civilizations (*Journ. of Near Eastern Studies*, V, no. 4, 1946).

the greater part of mankind will be left, no less than in the past, to load his camels and donkeys and trudge behind them over the stony sand at a steady 2½ miles an hour. Again as an archaeologist, I view this divorcement without dismay. The old philosophy that it is better to travel hopefully than to arrive need not be scorned by those new philosophers who would rather arrive than travel. Let us for a moment or two travel in the older way through some of the ancient gateways which have connected the history or prehistory of India with that of continental Asia.

* * * * * *

It is a familiar fact that the great Himalayan barrier and its extensions, which, on the map, give India an aspect of geographical exclusiveness, are in fact penetrable at a large number of points. For example, there are routes from China to the Brahmaputra in Assam; through Sikkim it is possible to reach the Tibetan plateau; further west a number of feasible if arduous routes enter Kashmir from Turkestan. The most notable of these routes used the famous Karakoram Pass, a desolate highway, if such it can be called, from High Asia into trans-Indus Kashmir. But neither this nor any other of these northern approaches has played any dominant rôle, so far as we know, in the formation of Indian civilization. Their importance lay rather in the reverse direction, in that they were amongst the chosen channels for the diffusion of Buddhism and certain aspects of Buddhistic art from India into central Asia and China.

On the north-western frontier of India and thence southward to the Arabian Sea the picture is a very different one. Here the approaches into India, though not always easy, are abundant and loom large in Indian history and prehistory. For the most part they are still frequented, with a preference for one or two main routes. They may be grouped into two series: a northern and a southern.[1] The northern group links north Iran and the Oxus region with Kābul and the central reaches of the Indus; the southern group links central and south Iran alternatively with Kandahār, north Baluchistan and the more southerly reaches of the Indus, or with Makrān and the Indus delta. These two groups, as we shall see, are significant in the cultural relations of Iran and India.

The northern group today converges on the Khyber Pass, which has been a major traffic-axis since the establishment of Peshawar as a metropolis in the second century A.D. An earlier route followed the more northerly line of the Kābul river with Chārsada, the ancient Pushkalāvatī (20 miles north-east of Peshawar), as its immediate goal. South of the Khyber alternative tracks used and still use the Kurram Valley and the Peiwar Pass; and further south again the Tochi, Gumal and other vallies carry ancient thoroughfares from the direction of the Ghaznī-Kandahār uplands. At this point, feeders from the southern group spread delta-like towards the Indus plain. The Zhob Valley carries or carried a modest traffic north-north-eastwards from the direction of Quetta, itself the northernmost of the three focal points of the southern group; the others being Kalāt and Las Bela. South-eastwards from Quetta a route, now followed approximately by the railway, enters the plains *viâ* Sibi. Westwards from Quetta, a camel-route leads towards Kirman and southern and western Iran. And at the southern end of our series, Las Bela, now 'an insignificant Baluch town, ... must have stood full in the tide of human immigration into India for centuries in the past. It is a true gateway.'[2]

[1] Aurel Stein, 'The Indo-Iranian Borderlands', Huxley Memorial Lecture, 1934, *Journ. Royal Anthropological Institute of Great Britain and Ireland*, LXIV (1934), 180ff., divided the frontier region into three zones; but his northernmost zone, north of the Kābul river, is insignificant from the point of view of regular traffic and *is* here included in our northern group.

[2] T. H. Holdich, *The Gates of India* (London, 1910), p. 139.

to dominate. On this basis it is found that the Red Wares extend through central and northern Iran, along the fringes of the Caspian Sea; whilst the Yellow Wares extend from Mesopotamia through southern Iran, in the lands bordering upon the Persian Gulf and the Arabian Sea. The site known as Tepe Sialk at Kashan, 150 miles south of Tehran, may be regarded as the approximate meeting-point of the two Wares in central Iran.

This same duality, again with many exceptions in detail, has recently been studied by Professor Stuart Piggott in connection with the painted-ware cultures of the Indian frontier.[1] In the Indus Valley itself and in the northern Baluchistan hill-country east and north-east of Quetta, the Red Ware is predominant. In southern Baluchistan, down to the Arabian Sea, the Yellow Ware is predominant, thus forming a natural extension of the South Iranian series, however different in detail. There can be little doubt that, when central and northern Afghanistan are opened up more widely to scientific exploration, the North Baluchistan Red Wares—doubtless not undiluted by Yellow Wares—will link themselves similarly with the Red Wares of the Iran-Turkestan borderland; the most likely route geographically being along the fringe of the plateau west and south of the Hindu Kush massif, *via* Meshd, Herat and Kandahār.

In summary, then, from the Indus to Iraq (and beyond), we may for the moment recognize two broad geographical and, in a restricted sense, cultural zones, a Northern and a Southern, a Red and a Yellow. In the wider movements of human culture, what does this seemingly trivial differentiation signify?

Let it be said at once that, within the two broad categories, there is a vast divergence of detail. It is rather the general geographical coherence of the scheme than its validity in detail that gives it a provisional utility in the present phase of research.[2] Within the relatively short compass of the Indus frontier itself, both the Red and the Yellow groups subdivide into a number of units of varying character and age, which demand a far more analytical study than they have yet received.[3] And in the broken country which constitutes a great part of the two main zones, the isolation of cultural units and the incalculable time-lag in their interaction render a widespread diversity inevitable, its interpretation difficult and dangerous. The scientific excavation of half-a-dozen carefully selected sites on both sides of the Indo-Iranian (to say nothing of the Indo-Afghan)[4] frontier is the necessary preliminary to a fresh advance. Here is a golden opportunity for co-operation between Iran and India, to their mutual profit. Ancestral Iran and ancestral India share the same problem.

And surely that problem is of a kind calculated to stir the imagination of the most detached spectator. At every point it touches major relationships and achievements in one of the great formative phases of human progress. I may refer to one or two of these broader aspects. It has long been a familiar fact that in the central highlands of Baluchistan there remains today an island of that non-Aryan 'Dravidian' speech which forms the basis of the vernaculars of southern India. The supposition is that this island, that of the

[1] *Ancient India*, no. 1 (1946), pp. 8ff.

[2] I would emphasize the provisional nature of this colour-classification. More complex and significant categories are beginning to replace it as knowledge accumulates. In any case the colour-division does not work in India below the foot-hills of Baluchistan. On the great plain of the Indus-system any such division as may have subsisted at the outset must quickly have been obscured by easy lateral transit. Actually, the Red Wares are dominant throughout the Indus Valley.

[3] Since the above was written, Dr. Donald McCown has spent several months in India (1946-47) upon this task, with important results of which the publication is now awaited. His localization and chronological equation of cultures and industries will provide a fresh starting-point for careful selective digging.

[4] In view of the predominance of Red Ware in the Indus Valley, the need for linking up N.E. Iran with India by excavation in Afghanistan assumes a special importance for India.

Brāhuīs, is a last outlying vestige of a once-continuous Dravidian linguistic system extending at least from the borders of Iran to the furthest point of the Indian peninsula, but now left derelict by erosion like a sarsen-stone on Salisbury Plain. From this not impossible supposition it has been an easy step to presume an early cultural continuum from India to Iran and Mesopotamia; and a number of Indian and other writers of varying authority have alternatively derived a pre-Aryan India from Sumer and Iran, or, more readily, a proto-Sumerian Mesopotamia from India. The latter view even had behind it at one time the high authority of H. R. Hall.[1] It may be admitted that the supposition has not been supported by subsequent archaeological evidence. There is in South or 'Dravidian' India no known culture significantly comparable with that of early Sumer and no ancient civilization on any equivalent cultural plane. In saying this, we have constantly to bear in mind the reservation that our present knowledge of the early cultures of South India is sketchy and liable to extensive revision.

Relegating this great problem for possible consideration at some future date, we have at our doors another major enquiry which may ultimately be found to have some bearing upon it. I have already referred to the now-famous civilization which took shape in the Indus Valley sometime in the third millennium B.C. and perhaps towards the middle of that millennium. How did that civilization—one of the three or four great civilizations of the pre-classical world—arise? What was the contribution of Iran and Iraq to its complex structure? Did it rather spring spontaneously from the soil of India? These are questions which affect vitally our evaluation of human endeavour in ancient Asia, and they are questions which can only be answered by enquiry of an unremittingly objective character. Experience shows how easy it is for such discussion to degenerate into spurious sentiment and national rivalry.

We may confess at once that, at present, we have no answer to these questions. But let us briefly review the principal known factors.

In the fourth millennium B.C. we have in Iran a series of chalcolithic cultures which are marked by fairly evolved industries, particularly that of pottery-making, but display, so far as we know, no great advance along the path of urban development. That is but natural in view of the rigorous conditions of living presented by the stony, hill-divided plateau of Iran to a population still inadequately equipped. During that millennium, however, a geophysical change was occurring away to the west of the plateau, in the vicinity of Fars: what is now the lower valley of the Tigris-Euphrates system was gradually silting up and offering tracts of fertile alluvium where previously sea and salting had prevailed. Into this promised land, it would appear, some of the plateau-folk found their way. Susa, Ur, al 'Ubaid yield traces of them at the lowest level. And at once the major conditions required for the production of city-life, civilization, were assembled in readiness for the next phase: a fertile soil, water, easy river-transit, unimpeded caravan-routes, an industrious people. In such conditions development was rapid. The evolved urbanity of Early Dynastic Ur is today sufficiently familiar, at any rate in outline, and I need not occupy your time by recalling it to you.

But it is both probable and natural that the path of this urban development was not altogether a smooth one. In the course of it we can recognize cultural changes sufficiently abrupt and extensive to suggest interruption and the advent of influences from new directions, probably outside Iran. The implication of these changes in respect of Iran cannot yet indeed be defined, but it may be that, for a time, Iranian enterprise was diverted by them from the Mesopotamian plain into other channels. Did these alternative channels lead

[1] *The Ancient History of the Near East* (London, 1920), p. 173; T. K. Krishna Menon, *The Dravidian Culture and its Diffusion* (Ernakulam, 1937), pp. 14 ff.; T. R. Sesha Iyengar, *Dravidian India* (Madras, 1925), p. 40.

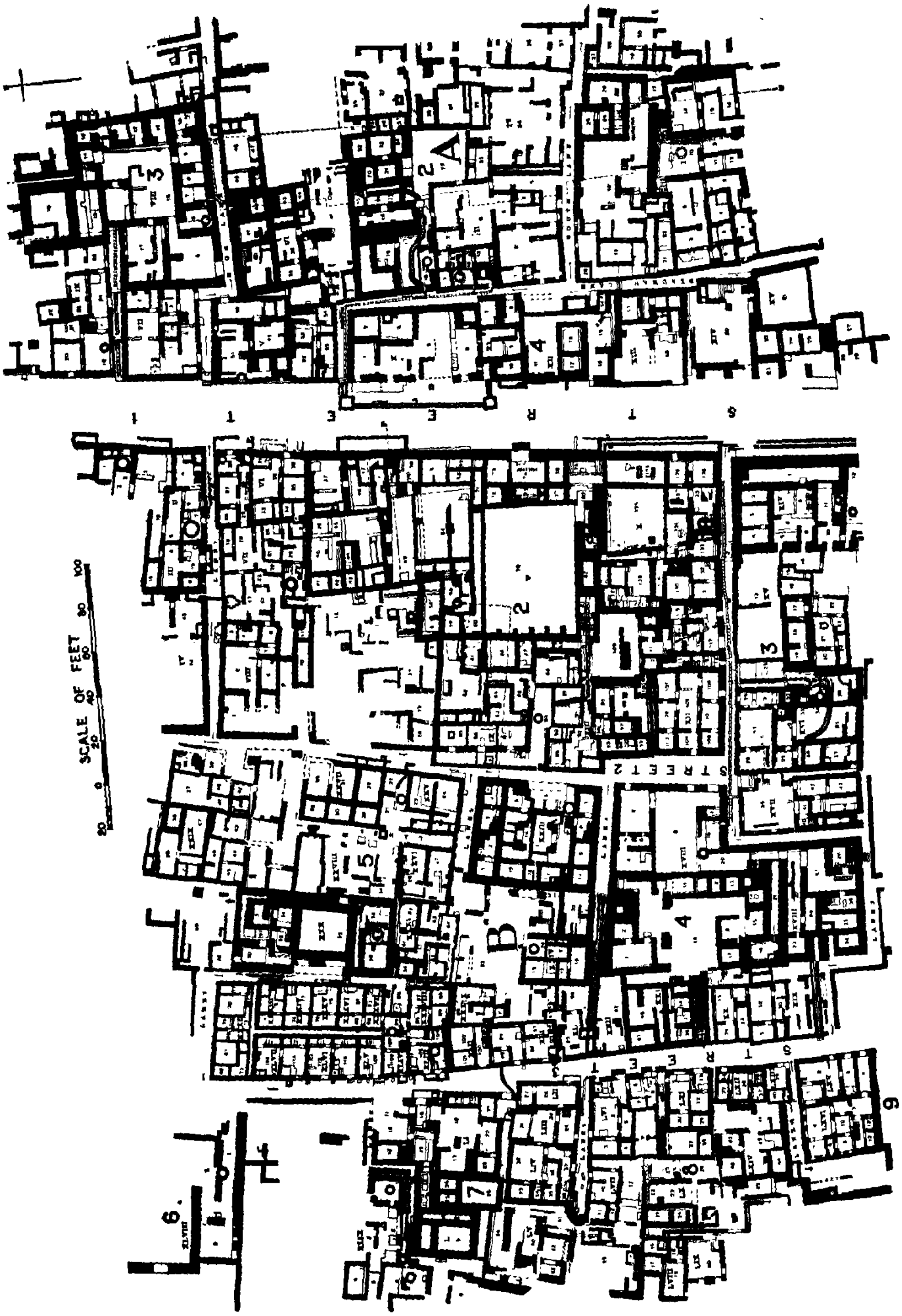
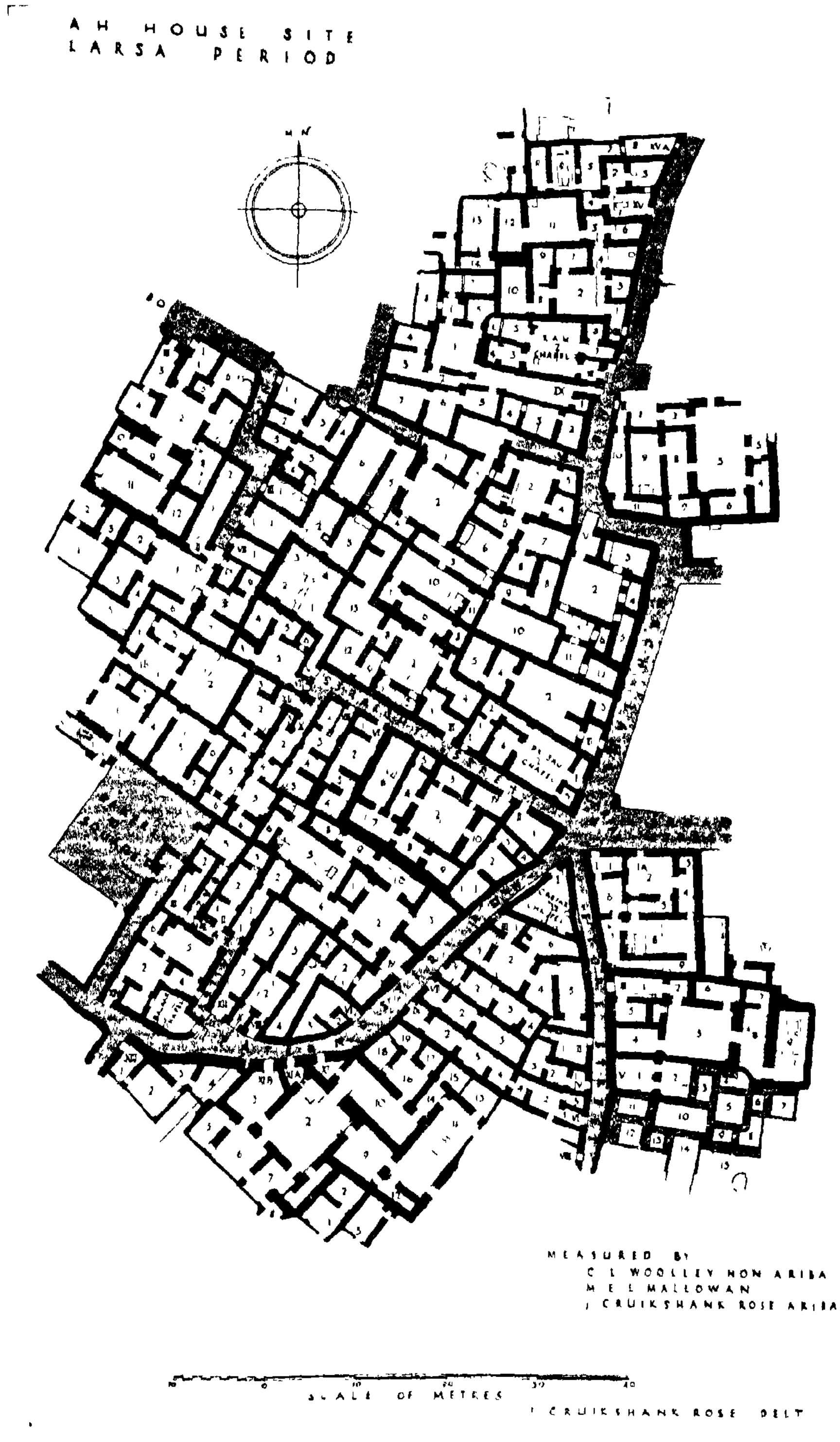


FIG. 1. *Mohenjo-daro : insulae in H.R. Area*



Part of the town-plan of Ur, early 2nd millennium B.C.
(Antiquaries Journal, XI, 1931)



Rājgir: town-defences at the Bāngangā defile, c. 6th century B.C.

towards India? Did the Iranian reservoir, dammed up towards the west, now begin to overflow eastwards into the Indian borderland? Some such movement would provide a context for the scattered scraps of evidence which are known to us from Makrān and Baluchistan. And it would be logical to see in such a movement from the plateau to the Indian plain a repetition of the previous movement to Mesopotamia, with parallel results in the creation of a great riverine civilization, that of the Indus Valley. Unfortunately the logic of history is not always of so simple a kind; and, whilst we may expect that this conjecture contains a measure of truth, it does not necessarily contain the whole truth.

For it has to be admitted that the culture of early Susa and Ur displays a more recognizable affinity with those of the west-Iranian plateau than does the culture of Harappā or the Indus Valley with those of Baluchistan. A remarkable and at present unexplained feature of the Indus culture is its *separateness*, combined with an astonishing uniformity throughout the great length of its territory.[1] Its uniformity may perhaps be regarded as the reflection of a high degree of administrative centralization of a kind which occurs from time to time throughout Indian history and is easily explicable in a region such as the Indus Valley where there was no natural obstacle to intercommunication. Certainly the outstanding size of the cities of Mohenjo-daro and Harappā in relation to the other thirty-five known sites of this culture—all of them relatively small towns or villages—can most naturally be interpreted as evidence of an imperialist element in the Indus polity. But the quality of *separateness* is less readily intelligible, and, as a major problem, I may pause for a moment to define it.

In essential characters the Indus or 'Harappā' culture, as represented by its most abundant manifestation, its pottery, is unique. Its partiality for hatched patterns, its free use of intersecting circles and their variations, of scale-pattern, even of motifs based on the *pīpal* or similar leaf, may occasionally be matched in detail in Baluchistan or even further afield, but as a characteristic assemblage it is without analogy. Its steatite seals bearing animal-figures often of Indian species—humped bull, elephant, tiger, rhinoceros—are absolutely without parallel; as is the uninterpreted script with which they are associated. Some of its bronze equipment, notably a curved type of knife-blade, is peculiar to the culture, and the extreme scarcity of the superior socketed tools at a time when they were familiar to Mesopotamia is further evidence of isolation. A few objects manifestly of Indus origin found in Mesopotamia, and still fewer of Mesopotamian origin found in the Indus Valley, are useful for the correlation of chronology but serve to emphasize the separateness of the two civilizations.

And yet the *idea* of city-life on the developed scale of Mohenjo-daro and Harappā at a time when civic models were few and far between, combined with the certainty that this development in India was considerably later than the equivalent development in Mesopotamia and south-western Iran, seems to impel the inference that there was some sort of causal relationship between the two. Furthermore, there is at Mohenjo-daro, in contrast for example to Ur, an indication of sudden maturity which suggests the intrusion of a perfected civic scheme. True, the lowest levels of Mohenjo-daro have not yet been explored and our knowledge is therefore incomplete at a crucial stage. But to a very great depth the rigid lay-out of the city, with its long, straight, well-drained streets and its *insulae* or rectangular house-blocks (fig. 1), makes it clear that the plan was at an early phase controlled by experienced civil architects. At Ur, on the other hand, the town-plan as we know it, with its meandering main streets, suggests a basic village-plan from which the city was eventually evolved (pl. XXIII). Always with the reservation that our knowledge is incomplete, we seem to have in Mesopotamia the early evolution of an idea, in India

[1] See map in *Ancient India*, no. 3 (1947), p. 58.

the later imposition of the idea perfected. If this inference is correct, we are almost driven to suppose that the *civic idea* came to India in some fashion from Mesopotamia or south-western Iran, but that in India it was re-created by an essentially alien, essentially Indian, cultural environment.

Now this is precisely the conclusion which all analogy in India would lead us to expect. It accords exactly with the known trend of the Indian genius. At a far later date, in the full light of history, we have in the Islamic invasions of India far more drastic and whole-sale intrusions of foreign (largely Iranian) ideas than is likely to have occurred in the conditions of the third millennium B.C. Yet we have but to compare the Isfāhān of Shāh Abbās with the nearly contemporary Fatehpur Sikri of Akbar the Great to see how completely the Iranian traditions and concepts of the Persianized Moghuls—the Iranian *ideas* of mosque, tomb, and hall of audience, the rhythmic employment of the voussoired arch, the emphasis of the high dome—had been reoriented by the Hindu mind and the environment of Hindustan. We can, I think, best visualize the relationship of the Indus civilization with its contemporaries and forebears of Iran and Mesopotamia along those lines. It is the age-long story of the encompassing personality of India, with its unpredictable capacity for combined assimilation, and invention. We may analyze it—and the further analysis of the early relationships of Iran and India cannot fail to yield results of high value to our appreciation of the growth of civilization in both countries—but we cannot hope to reduce it to an easy historical or archaeological formula.

* * * * * *

To end this first part of my lecture, I may once more bring Iran into the centre of the stage. I have elsewhere conjectured that Aryan invaders from Iran may have been responsible for the break-up of the Indus Valley civilization.[1] The suggestion is not a new one, but it derives a new modicum of force from the recent recognition of massive fortifications in the two principal Indus cities and, by implication, in others of the series. Archaeological evidence indicates that the Indus civilization was still extant at the beginning of the second millennium B.C., at a period approaching the conventional date for the main Aryan influx into the Punjab, namely the fifteenth century B.C. With this dating, Marshall's reasonable thesis that the Indus civilization was essentially non-Aryan in character is consistent.[2] Now the Ṛigveda, which preserves some image of the great incursion into the Land of the Seven Rivers, speaks constantly of the 'forts' or 'citadels' which lay across the path of the invaders. Indra, the Aryan war-god, is 'fortress-destroyer'; he demolishes ninety, ninety-nine, a hundred citadels; he 'rends forts as age consumes a garment'. Massacred men, women and children are found in the topmost levels of Mohenjo-daro. Where else, save in the Indus cities, were there non-Aryan citadels worthy of the prowess of Indra and his Aryan following? Certainly no rival claimants are known to us. On the present showing, it is a fair inference that the Indus civilization in its old age was cut down by those who gave their name to Iran—an act of zealous neighbourliness which cost India an ancient and perhaps over-ripe civilization but gave her the crude elements of a more modern one.

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I now pass over a thousand years which are in India a complete black-out save for the dim flicker of the Vedic hymns, and turn to a period where greater certainty prevails.

[1] Subsequently published in *Ancient India*, no. 3 (1947), pp. 82ff. Cf. R. N. Dandekar in *Annals of the Bhandarkar Research Institute*, XXI (Poona, 1941), 34, footnote.

[2] J. Marshall, *Mohenjo-daro and the Indus Civilization* (London, 1931), I, 110ff.

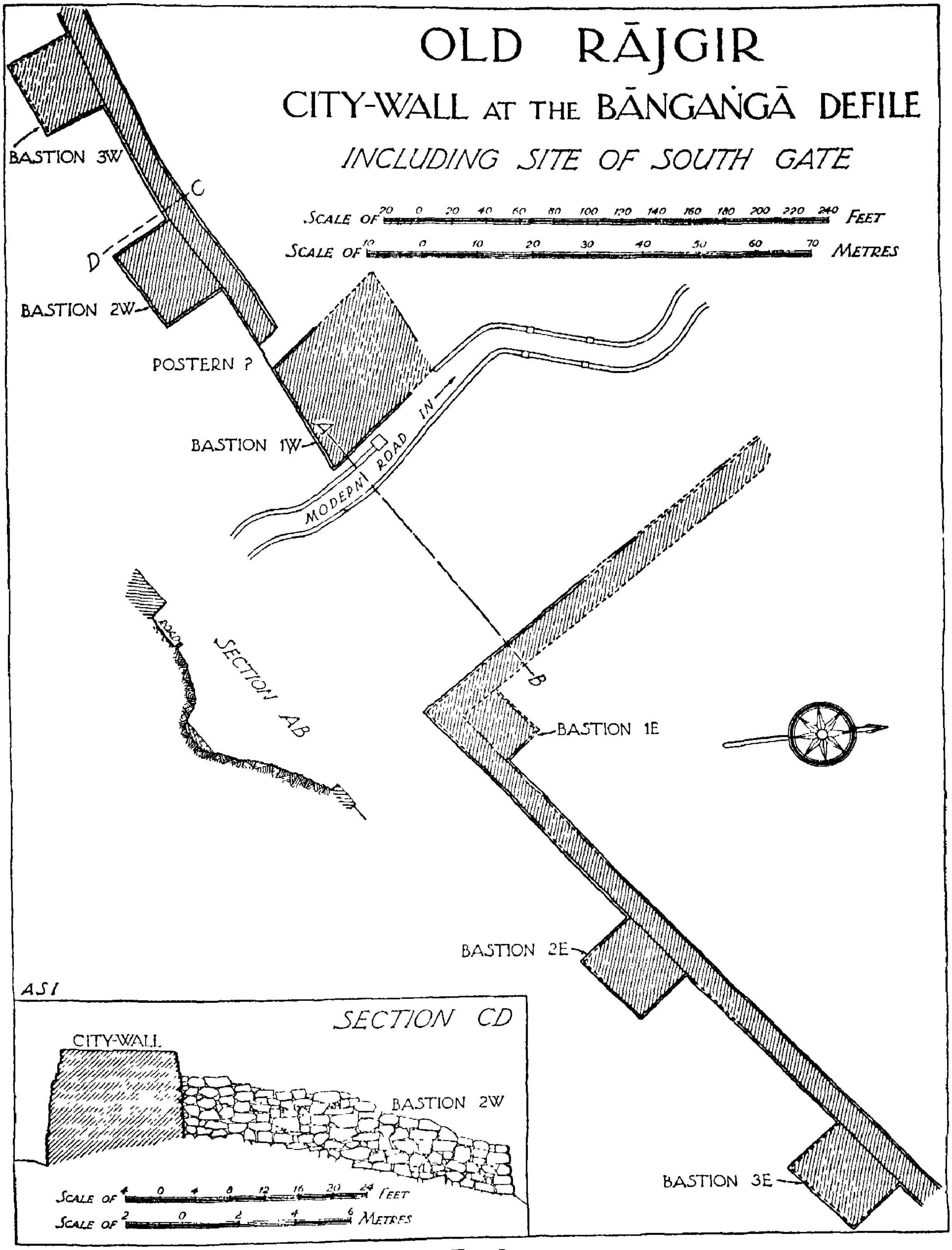

OLD RĀJGIR
CITY-WALL AT THE BĀNGAṄGĀ DEFILE
INCLUDING SITE OF SOUTH GATE
SCALE OF FEET
SCALE OF METRES
BASTION 3W
C
D
BASTION 2W
POSTERN ?
BASTION 1W
A
MODERN ROAD IN
SECTION AB
B
BASTION 1E
BASTION 2E
BASTION 3E
ASI
SECTION CD
CITY-WALL
BASTION 2W
SCALE OF FEET
SCALE OF METRES

FIG. 2

In doing so, I propose to remind you of another example, this time in the early historic period, of that process of cultural assimilation and transmutation which we have just recognized in the prehistoric relationships between India, Iran and the West.

Subsequently to the third millennium B.C., the earliest stone structures in India to which an approximate date can be attached are the remnants of the great defences of Old Rājgīr in Bihar. These defences, 25 miles in length, enclose the site of the city which was associated in the sixth century B.C. with the Buddha and Mahāvīra during the first formative period of the Buddhist and Jaina religions. The work consists of a massive wall, dry-built, of large unshapen stones, with square bastions at frequent intervals (pls. XXIV and XXV and fig. 2). These rugged works can scarcely claim the name of architecture; nor can that term be applied with any show of enthusiasm to the rough stone-and-mud structures of pre-Alexandrine Taxila, in the Punjab. There, on the Bhīr Mound site, a considerable area of streets, shops and houses dating from the fifth and fourth centuries B.C. was cleared in and before 1945.[1] With rare exceptions, the buildings are a rambling conglomeration of ill-aligned and ill-built walls, resembling rather the slum of a poverty-stricken suburb than the central lay-out of a capital city. Almost the only architectural 'feature', if such it may be called, is the occasional use of untidy stone pedestals designed to carry wooden roof-posts. The general culture of the city was of the same inferior order: only at the end of the fourth century, at or shortly after the arrival of Alexander the Great, do considerable hoards of sophisticated jewellery, including two superb gems of Achaemenian workmanship,[2] enliven the monotony of the scene. It is likely enough that these hoards were either Persian loot brought to Taxila by Alexander's following, or were otherwise a sequel to the devastation of the Persian Empire and the accompanying dispersal of Achaemenian craftsmen and craftsmanship.

In 'Āryan' India, the term 'architecture' can first be applied unreservedly to the famous columns, once more than thirty in number, upon which the emperor Aśoka, in the middle of the third century B.C., carved his pious injunctions to his subjects. It has long been recognized that these columns, without precedent in Indian architectural forms, represent *in partibus* the craftsmanship of the Achaemenian kingdom of Iran.[3]

The name 'Persepolitan' which is commonly given to them by writers on Indian architecture is strictly a misnomer. Persepolis was destroyed completely by Alexander in 330 B.C., and, though there was a subsequent occupation of a kind, it differed materially from that of the vanished Achaemenian régime. The Aśoka columns were erected after 250 B.C., more than three quarters of a century later. At their best, they are distinguished by a superb carving and finish, including a lustrous polish of a kind which in India is characteristic of no other age. These are Iranian features. The masonry of the palaces of Darius and Xerxes at Persepolis 'goes to the extreme of highly polished stones, looking, when well preserved, like mirrors of black marble'.[4] But this perfection of craftsmanship

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[1] J. Marshall, *Guide to Taxila* (Delhi, 1936), pp. 143ff.; Stuart Piggott, *Some Ancient Cities of India* (Oxford, 1945), p. 23.

[2] These gems (*Ancient India*, no. 1, 1946, p. 33), were published as Ionian Greek, but I prefer the alternative view of Dr. John Allan that their workmanship is Achaemenian.

[3] Only the form and technique of the Aśokan pillars are here in question. The actual custom of setting up memorial pillars was Indian rather than Persian, and we have here therefore another instance of the adaptation of a foreign expression to Indian concepts. See Dr. Chakravarti's discussion above, p. 23. Pl. XXVIII shows the famous Sārnāth capital, and pl. XXVII B a similar lion-type on an unfinished impost at Persepolis.

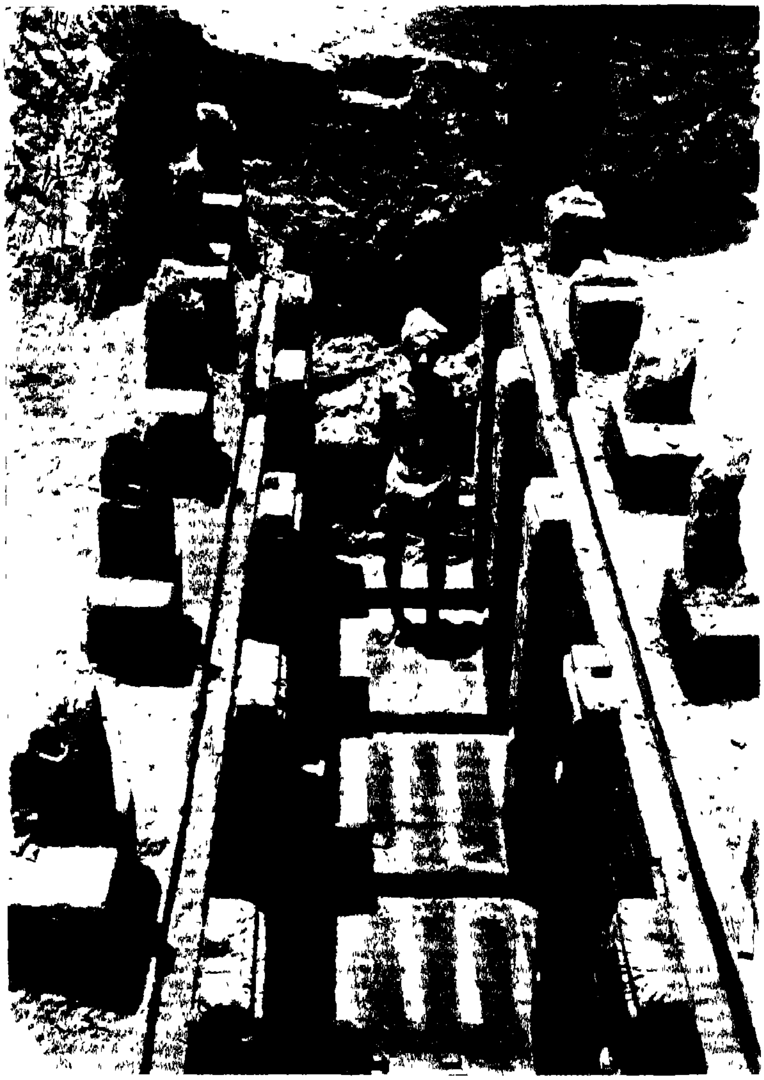
[4] E. Herzfeld, *Iran in the Ancient East* (Oxford, 1941), p. 236. The most notable surviving examples of mirror-like polish are to be seen on the window-jambs of the *hadish* of Xerxes at Persepolis.



A *Rājgir: inner face of town-wall E. of the Bāngaṅgā defile*



B. *Rājgir: bastion 2E, E. of the Bāngaṅgā defile*



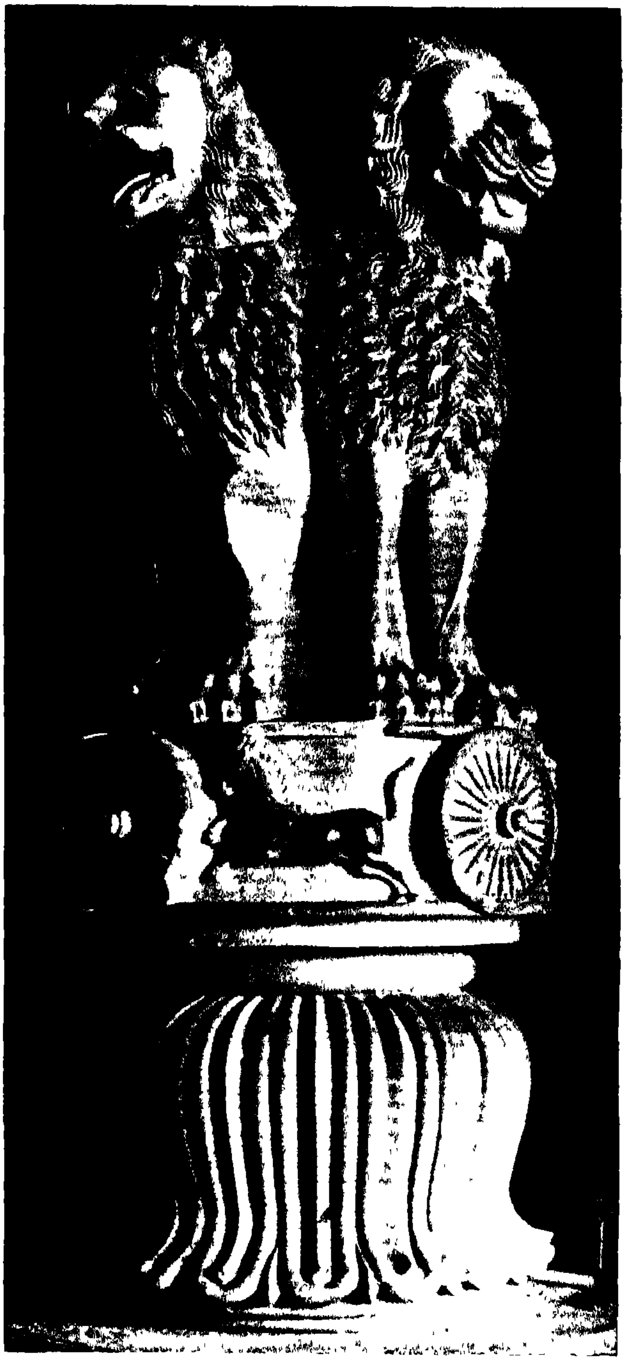
Pāṭaliputra: timber-lined drain through defensive palisade, c. latter part of 4th century B.C.



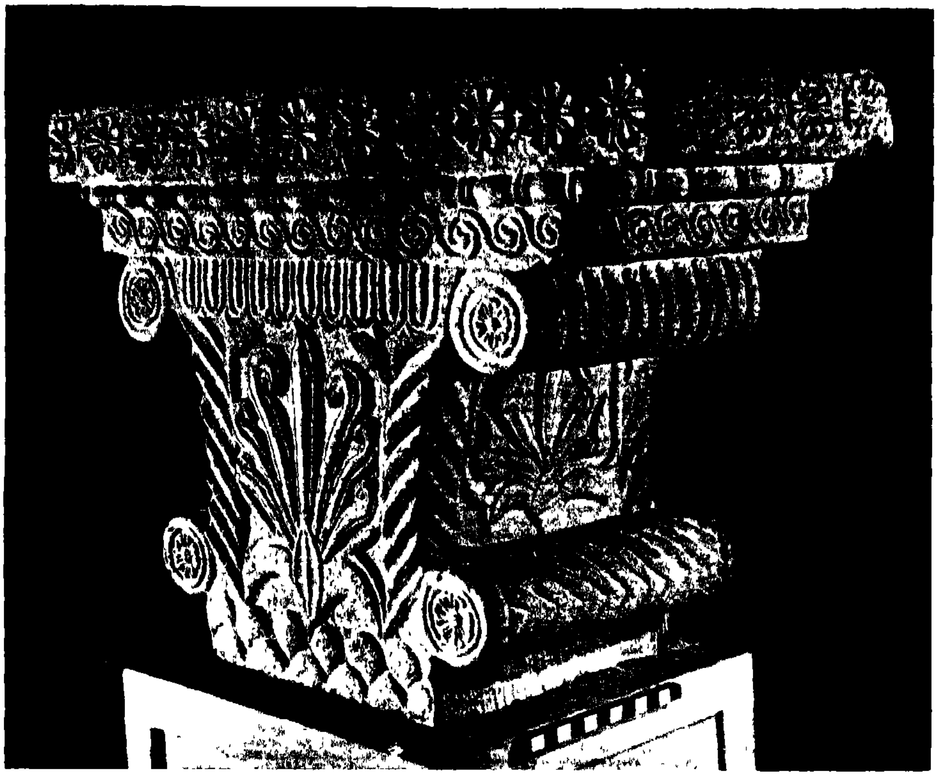
A. *Pātaliputra: defensive palisade at Bulandībāgh, c. latter part of 4th century B.C.*



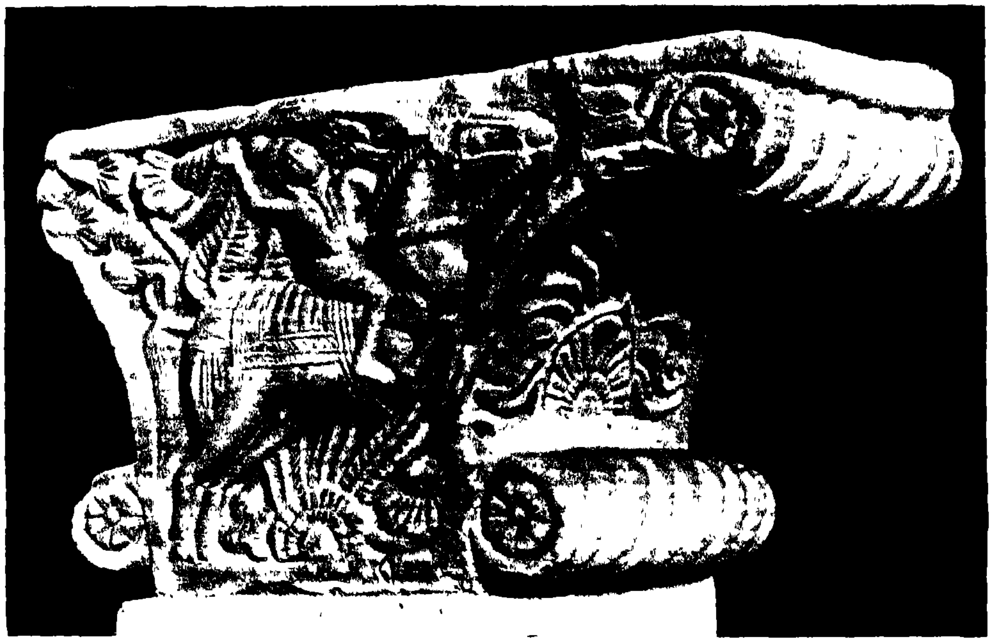
B. *Unused impost at Persepolis, c. 330 B.C.* Height 8 feet.



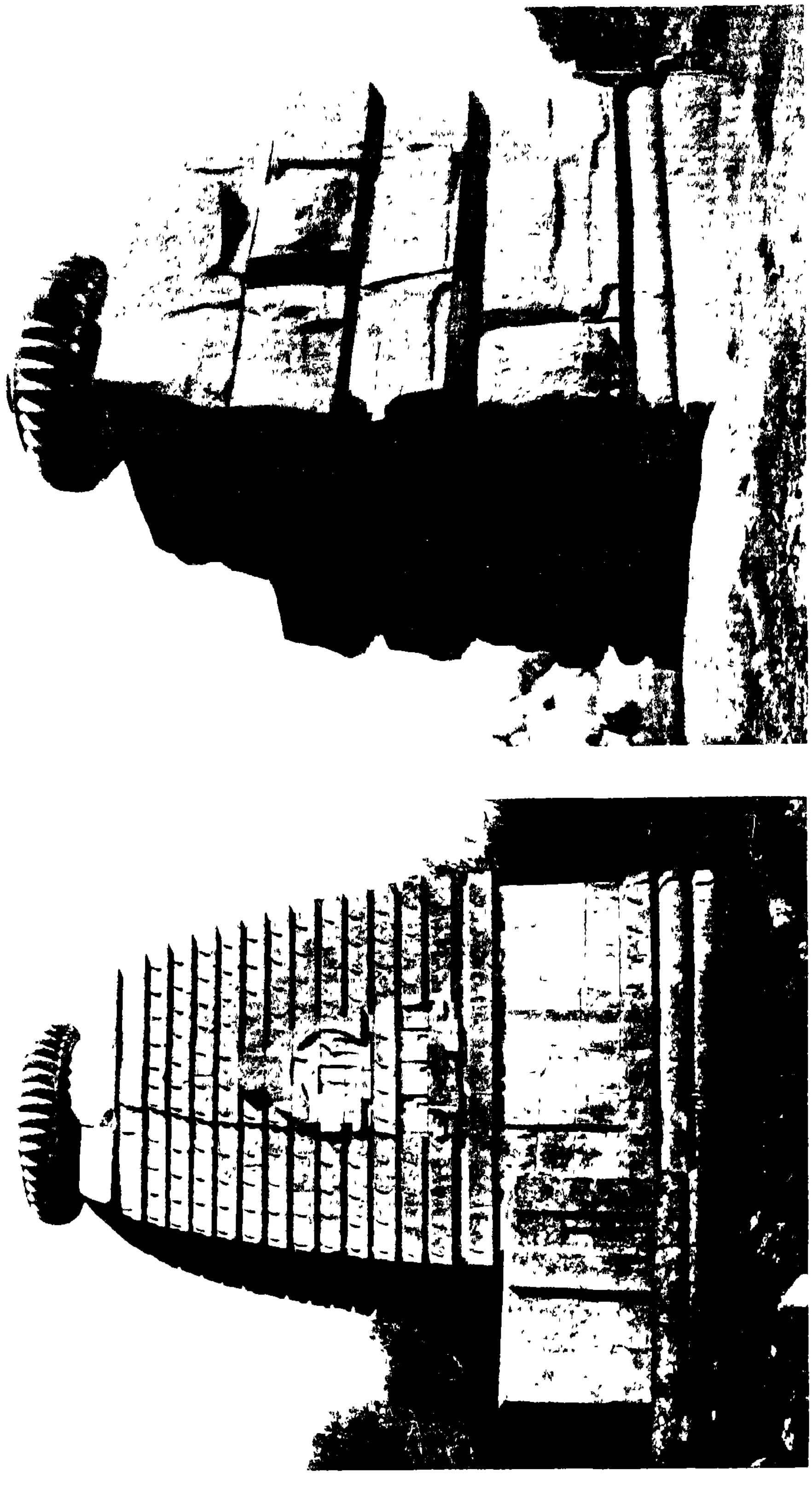
Aśokan capital at Sārnāth, c. 245 B.C. Height 7 feet.



A. *From Pāṭaliputra*, c. *3rd century B.C.* (*Patna Museum*).
Height 2 feet 9½ inches.



B. *From Sārnāth*, c. *2nd century B.C.* Height 1 foot 1½ inches.
PERSIANIZING CAPITALS FROM INDIA



Finished and unfinished medieval temples at Mahendragiri, district Ganjam, Orissa

appears to have perished in the flames of Persepolis in 330. The former high polish and finish of the masonry were 'abandoned immediately after the Greek conquest'.[1] Where did Aśoka, more than two generations later, acquire his sculptors and his masons? Certainly not directly from Persepolis. And incidentally—a small point—the innumerable columns of Persepolis are invariably fluted; those of Aśoka have plain polished shafts. In this respect they resemble the columns of the earlier royal city of Pasargadae, some 50 miles north of its successor Persepolis. The unfluted type was indeed more normal than the fluted in Achaemenian architecture, and in India it was the normal plain type that took root, and was used not merely as a vehicle for Aśoka's exhortations but also as a structural element in the Mauryan capital-city of Pāṭaliputra (Patna) in Bihar, to which I shall refer again. There is in fact no certain evidence of the use of fluting or faceting in India earlier than the inscribed column of Heliodorus at Besnagar, Central India, *c.* 140–130 B.C. or a little later.

If it was not, then, from the contemporary Persepolis that Aśoka drew his Iranian craftsmen, how came Achaemenian forms and craftsmanship to re-appear in the heart of India two or three generations after the end of the Achaemenian empire? Historically, the answer is easy enough; only the material link is at present missing. At the death of Alexander, and in spite of the counter-efforts of his eastern successor Seleukos the Conqueror, the Indian kingdom of Aśoka's grandfather, Chandragupta, was extended westwards through Baluchistan and Afghanistan to the very borders of Iran. In this western trend, the Indian king was absorbing a territory which, though basically non-Iranian, was prepared by long use for the circulation or transit of Persian ideas and indeed officially employed a Persian script for its vernaculars.[2]

Across this partly Persianized no-man's land, the empire of Chandragupta advanced westwards at a crucial moment. The wealthy despotism round which Achaemenian culture had revolved was shattered, and the old metropolitan craftsmanship was for the moment homeless. But Chandragupta was an ambitious autocrat in the Persian manner, generically if not specifically the cultural successor of the Great King. Amidst the marchings and counter-marchings of Alexander's rival generals, the court of the Indian despot must have seemed the natural refuge for the craftsmen of the dead Darius. And it is no matter for surprise that far to the east, in the plain of the middle Ganges, the homeland of the Mauryan dynasty which Chandragupta founded, clear evidence has been discovered of the handiwork of these Iranians and their first Indian pupils.

Reference has already been made to the fortifications of ancient Rājgir and to the distinguished priority which their rugged masonry holds in the history of Indian architecture. Subsequently, about the middle of the fifth century B.C., the capital of Magadha was transferred to the richer and more accessible plain beside the former junction of the Son and the Ganges. It was here, at Pāṭaliputra, that the usurper Chandragupta established himself by intrigue and force of arms about 322 B.C., and it was here that Megasthenes, the envoy of Seleukos, found the palace of the Mauryan king some twenty years later. The scraps of information bequeathed to us by Megasthenes combine with equally fragmentary archaeological evidence to indicate with fair certainty that beneath the soil which now covers the water-logged site of Pāṭaliputra lies the surviving handiwork of our two missing generations of Iranian craftsmanship.

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[1] Ibid., p. 278.

[2] The earliest example of the Kharoshṭhī script of north-western India, derived from the official Aramaic script of Persia, is as late as *c.* 257 B.C., but there can be no doubt that it was evolved before the burning of Persepolis. For the script, see Sten Konow, *Corpus Inscriptionum Indicarum*, II, Pt. I, *Kharoshṭhī Inscriptions* (Govt. of India Press, Calcutta, 1929).

From the oft-quoted descriptions by Megasthenes, we know that in his day the city formed an oblong, 9⅕ miles by 1⅓ miles, surrounded by a ditch 200 yards wide and a timber palisade with loop-holes for archers; and that the palisade was reinforced by 570 towers and pierced by 64 gateways. In the royal palace, as we are told by Aelian, following Megasthenes, there was much which was 'calculated to excite admiration, and with which neither Susa, with all its costly splendour, nor Ekbatana, with all its magnificence, can vie. In the parks tame peacocks are kept, and pheasants which have been domesticated; and cultivated plants . . . and shady groves and pastures planted with trees, and tree-branches which the art of the woodman has deftly interwoven . . . . . There are also tanks of great beauty in which they keep fish of enormous size but quite tame.'[1] The whole description is significantly reminiscent of a Persian 'paradise'.

Of the splendour that was Pāṭaliputra little is known to us today in material form, but that little is precisely what the circumstances have already led us to expect. As long ago as 1896 a trial-excavation, conducted without method, brought to light a column-capital of a familiar Achaemenian pattern[2] (pl. XXIX A, cf. pl. XXIX B). It has the stepped impost, side-volutes and central palmettes of its Persian prototypes, and its design if not its execution is attributable to an early phase of the transplanted Iranian craftsmanship. Two stone legs of a throne of Achaemenian type were also found (see below, p. 101). Subsequently, in 1912, a more determined attempt was made to reveal the Mauryan city. The methods employed were scarcely more methodical than those of 1896, but the excavator succeeded in uncovering some part of a large pillared hall which may safely be related, as the excavator realized, to the pillared halls of the Achaemenids (fig. 3).[3] So far as explored, the plan of the Pāṭaliputra building represents an unframed cluster of some 80 monolithic columns showing the high polish which is in India distinctive of the Mauryan period and is, as already remarked, of Iranian descent. In front of the columns is a row of massive timber rafts, presumably designed to carry a platform or staircase on the unstable subsoil of the site. Unsatisfactory though the evidence is in detail, it is clear that we have here an Iranian *diwan* or *apadana* or audience-hall, and that we are dealing once more with a deliberate 'Persianization' that bespeaks the presence of imported ideas and doubtless of imported master-masons. It is to be hoped that, in spite of the technical difficulties of digging to the required depth in the water-logged soil of the site, a scientific extension of these excavations may be attempted and that a coherent plan may be produced. Such a plan would be of the utmost interest alike to Iranian and to Indian studies.

It may be added that the wooden fortification referred to by Megasthenes has also been identified in part by digging (fig. 4, and pls. XXVI and XXVII A).[4] A double line of upright timbers, 15 feet high, 14½ feet between the parallel lines, and bonded together by a 'floor' and a 'roof' of cross-timbers, has been traced for a considerable distance and appeared to the excavator to 'extend almost indefinitely'. Whether this was a passage within an earthen rampart or whether, as is more likely, the structure was filled with earth and formed its core or revetment, was not ascertained, although the point is one which could readily be determined by trained observation. This type of fortification is at present without analogy in India,[5] although Megasthenes records of the Indians that 'all their towns which are down beside the rivers or the sea are made of wood, for towns built of brick would never hold out for any length of time with the rains on the one hand and, on the other, the rivers which rise above their banks. But the towns which are built on elevated places out of reach are made of

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[1] Aelian, *Nat. Anim.*, XIII, 19 (third century A.D.), incorporating Megasthenes (end of fourth century B.C.).
[2] L. A. Waddell, *Report on the Excavations at Pāṭaliputra* (*Patna*) (Calcutta, 1903), pl. II.
[3] *Arch. Sur. of India An. Rep.*, 1912-13, pp. 53ff. [4] Ibid., 1926-27, pp. 135ff. Waddell, op. cit., pp. 20ff.
[5] Unless possibly at Ujjain.—B. C. Law, *Ujjayinī in Ancient India* (Gwalior, 1944), pl. I.

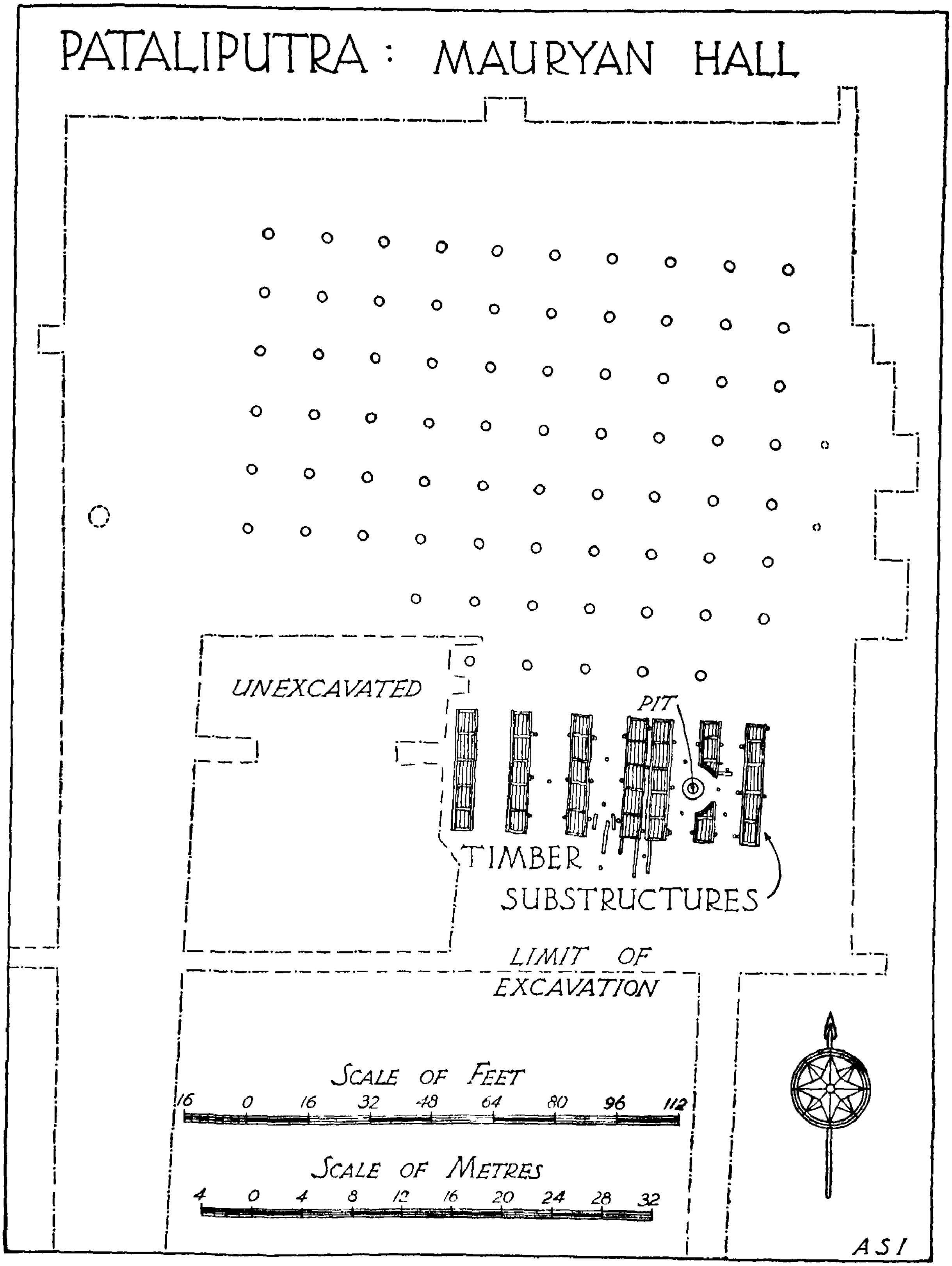

PATALIPUTRA: MAURYAN HALL
UNEXCAVATED
PIT
TIMBER SUBSTRUCTURES
LIMIT OF EXCAVATION
SCALE OF FEET
16 0 16 32 48 64 80 96 112
SCALE OF METRES
4 0 4 8 12 16 20 24 28 32
ASI

FIG. 3

brick and clay'.[1] It would appear therefore that the fortifications of Pāṭaliputra, in contradistinction to the pillared hall, represent the unmodified Indian tradition of construction.

With the Mauryan dynasty I approach the end of my short survey of the material influence of Iran upon pre-medieval India. It may justly be said that the cultural debt which, long before the rise of Islam, India already owed to Iran was restricted in scope but of basic importance. For many centuries after the last of our Achaemenian refugees had vanished from the scene their influence permeated Indian craftsmanship: so manifestly that there is perhaps a tendency on the part of the historian sometimes to exaggerate and distort it. Let us in conclusion summarize some of its main features, and attempt to appraise it with all fairness both to Iran and to India.

It may be recalled, in the first place, that the customs of inscribing upon rock and of carving 'architectural' caves out of the rock were established in Iran long before the date of the earliest known examples in India. From the seventh century B.C. onwards, if not earlier, tombs in the likeness of pillared halls were being cut into the cliffs of Media and Persia; whilst the earliest dated cave-buildings of India are those carved in the reign of Aśoka about 250 B.C. in the Barābar hills near Gayā in Bihar. The Bisutūn or Behistūn rock-inscription of Darius I dates from *c.* 518 B.C.; there is in India no precedent for the rock-edicts cut at the bidding of Aśoka in and after 257 B.C. In these things, the Mauryan emperor was deliberately adopting the methods of the Great Kings, whose mantle had in a sense descended upon him. But the resemblance is one of technique, not of spiritual or aesthetic content. Save for an occasiōnal formula, nothing could be more unlike the commemorative and administrative records of the proud Persian despots than the gentle exhortations of the equally despotic but more humble-minded Buddhist king. And the pillared porticoes of the Iranian caves were not, as yet, the pattern for the Indian rock-carvers. Instead, these found their models, for the present, in the round huts and bamboo doorways of their own countryside. Pillared porticoes were to follow, but most of the 'structural' details were to remain substantially Indian in their origin.

To this last statement there is a notable exception, which at the same time emphasizes the rule. The elements of the Indian architectural 'orders' were basically Iranian, and rarely lost all recognizable trace of their alien origin until the Middle Ages were well advanced. The bell-shaped lower member of the capital (pl. XXVIII), which is common to Achaemenian and Aśokan architecture, is sometimes called an 'inverted lotus', and there is no doubt that it was absorbed into what may be called the lotus-complex. In origin, it may have owed more to the palm-tree; indeed, the immensely tall and slender columns of Persepolis irresistibly suggest a palm-grove. But as the inverted lotus, or merely as a fluted or even unfluted adaptation of that form, this architectural element entered widely into the construction of the Indian 'orders' until, in the later Middle Ages, it was obscured by the dominance of the Chāḷukyan lathe or by the baroque fantasies of Vijayanagar. The elaborately fluted and enriched column-capitals for example, hewn out of square piers in the sixth century A.D. by the rock-cutters of Badāmi, in the southern part of the Bombay Presidency, retain the elements of this form more than eight centuries after its introduction into India; and even the plain or faceted capitals of Pallava and Choḷa architecture in the far south are derived ultimately from the same remote source.

Nor does the architectural link with Iran end there. In India, as in Iran, the weight of the architrave-beam is commonly transmitted to the column through an oblong impost-block or bracket, spread laterally to take the strain, rather than through the square impost of the more classical orders. These brackets varied in shape from age to age, and can to a considerable extent be classified chronologically. Some of them are elaborately carved

[1] Megasthenes, frag. 26.

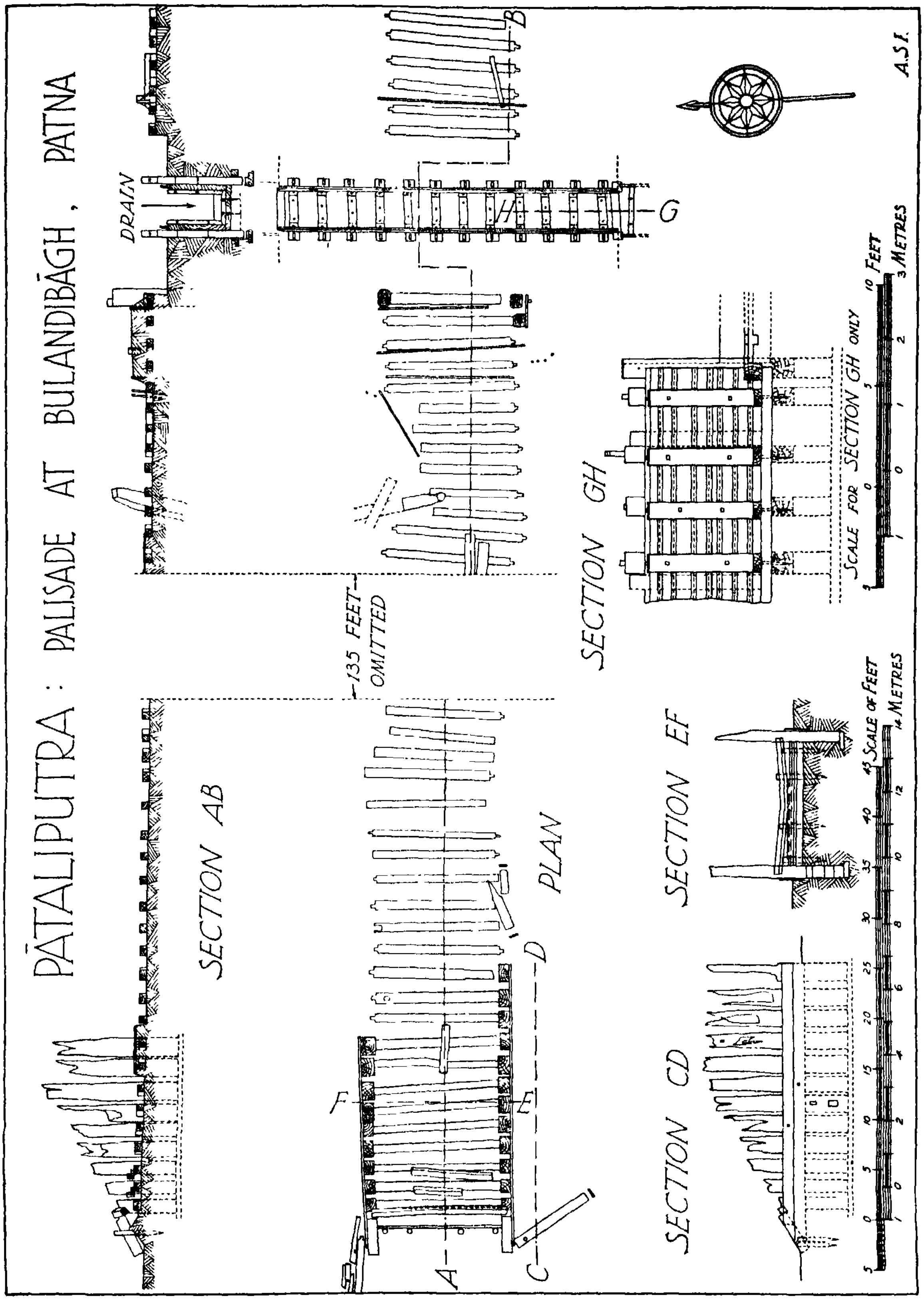

PĀTALIPUTRA : PALISADE AT BULANDIBĀGH , PATNA
SECTION AB
PLAN
SECTION CD
SECTION EF
SECTION GH
DRAIN
135 FEET OMITTED
SCALE FOR SECTION GH ONLY
A.S.I.

FIG. 4

into double or addorsed animal-forms which go back to the 'protomes' or double animals of the Achaemenian imposts (pl. XXVII B). Others are moulded into a variety of shapes which have close or identical counterparts in ancient and modern Iran, shapes sufficiently numerous and specialized to suggest a historical link between the two.

Some at least of these resemblances are good evidence for the Iranian tradition in Indian architecture. But it is constantly desirable to check and correct them against the fundamental fact that both the Iranian and the Indian architects were attacking similar problems with the same materials and under similar conditions. Both were thinking primarily in terms of timber-construction; and both were using rock or masonry mainly as a more permanent medium in which to render the forms that timber had suggested to them. They were both accomplished masons within the simple compass of trabeate construction, the only problem being that of supporting a vertical weight of greater or less degree, with negligible lateral thrust.[1] But in neither case was there normally any real integral relationship between the individual stones of the structure and its architectural or sculptural design. 'The Median stone-masons, when making columns, doors, windows or stairs, used to build up an artificial rock of the size and approximate shape required, and carved the wanted object out of that rock, as a sculptor carves a figure out of the raw block. Never is the object dissected into its structural components, in order to shape the stones according to their function. Old Iranian masonry never gets far away from its origin, the fashioning of rocks.' In Greek masonry 'the function rules the shape. Such a thing has never been attempted in Iranian masonry.'[2] The same remark is essentially true of Indian masonry. Far down into the Middle Ages it remained a practice to build an Indian temple of rough blocks and to carve them into shape afterwards (see pl. XXX). The only appreciable difference between the rock-cut and the free-built structure was the physical act in the latter case of quarrying and transporting the stones, and the necessity for providing an outside as well as an inside for the building. It may be added that, in Indian architecture, the resulting detachment of carver from builder was liable to lead, at the best, to a riotous and challenging independence of the decorative ornament and, at the worst, to the treatment of the building as a mere poster-hoarding or postage-stamp album. By reason of its essentially static and architectural quality Iranian sculpture offended less flamboyantly in this respect, but even there the solemn processions of gods and tyrants, soldiery and tribute-bearers, are manifestly unconscious, in great measure, of the vagaries of the building which they adorn.

I have dwelt on resemblances, both in general character and in detail, between the mature architecture of the Achaemenid empire and the incipient architecture of Mauryan and post-Mauryan India. Such resemblances are important: they link man to man and mind to mind, and give a proper coherence to the variegated history of civilization. But resemblance must not be confused with mimicry; the Indian architect quickly exchanged his borrowings into his own currency.[3] Indeed, the relationship of early Indian architecture to its Iranian precursor was not unlike that of the Kharoshṭhī alphabet of India, already cited, to that of the Persian Aramaic, whence it was adapted to the local Indian Prākrit. Or again it may be compared with those elusive similarities which we have noted between the Bronze Age civilization of the Indus Valley and its contemporaries or precursors in Iran and Iraq; similarities which fail to mask the strong individuality of all three regions. It is

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[1] The barrel-vaulted roofs of the Indian *chaityas*, of light timber-construction, scarcely provide an exception to this rule.

[2] E. Herzfeld, *Iran in the Ancient East*, p. 238.

[3] Reference may be made in this context to A. U. Pope, 'Some interrelations between Persian and Indian architecture', *Indian Art and Letters*, N.S., IX (1935), 101ff.

idle to speculate upon the course which Indian craftsmanship might have taken had it been deprived of its Iranian direction. We may content ourselves with the reflection that the situation in northern India at the end of the fourth century B.C. presents one of those convergences of circumstance which, like the Persian War on Greece less than two centuries previously, constitute from time to time a major focus in the history of civilization. The break-up of the old Achaemenian civilization by Alexander, the scattering of the metropolitan craftsmen of Iran, the simultaneous emergence of new and powerful patronage in India, and, not least, the capacity of the Indian craftsmen for adaptation and transmutation, all combined in the following centuries to establish an architectural tradition which, after all, resembles only itself. This conclusion is a testimony to the Indian genius but is no belittlement of the part played by Iran, then as earlier and later, in stimulating and helping that genius to find expression.

APPENDIX

THRONE-FRAGMENTS FROM PĀṬALIPUTRA

By STUART PIGGOTT

In the Indian Museum, Calcutta, is a pair of stone carvings (Nos. 5582-83) excavated by Waddell from the Kumrāhār site at Patna and consisting of two griffins about two feet high, carved in the round in white sandstone and finished with the well-known 'Mauryan polish'. These have been published more than once and assigned on stylistic grounds to the second rather than the third century B.C.,[1] but their significance does not seem to have been adequately appreciated. The Kumrāhār site was shown, in the excavations carried out by Spooner subsequently to Waddell's diggings, to contain the remains of a great hall with a timber sub-structure and roof supported on polished sandstone pillars (see above, p. 96), which can only have been part of the palace of the Mauryan kings at Pāṭaliputra, and it is my purpose in the following notes to show that the two griffin carvings under discussion are most likely to have been part of a stone throne or chair of state in that palace.

In themselves, the twin carvings (of which one is drawn in fig. 5, 1) do not of course admit of only one explanation for their use. They may be survivors of a series which formed brackets or consoles, in, for example, a roofing scheme (the flattening of the head presupposes that they carried some architectural member or similar feature), or they may be detached sculptures from a composite group, and in looking for parallels we may turn to a very similar sculpture from the Kankālī Tilā at Mathurā, probably first century A.D. (fig. 5, 2). Here is a dragonesque figure with clear analogies to the Patna beasts, and showing conspicuous tenon-joints for incorporation into some composite stone structure. Vogel, in publishing this sculpture,[2] believed it to have been an angle bracket in a *torana* of a stūpa of Sānchi type—an explanation more likely on a site that contained stūpa remains, as did the Kankālī mound, than in the ruins of a palace as at Patna—but I prefer to consider it also as being part of an elaborate stone chair. Both sculptures, I suggest, the Patna pair and the single example from Mathurā, originally formed part of the front of stone seats either, as at Patna, functioning as the front legs and carrying the arms of the chair on their heads, or at Mathurā, as an ornamental bracket in the angle formed by the leg and the arm.

Support for such a suggestion is fortunately available from more than one source. Among the sculptures from the Amarāvatī stūpa (second century A.D.) are at least three or four representations of thrones with lion figures forming brackets in exactly the position I have assumed for the Mathurā griffin[3] (see for instance, fig. 5, 3). The thrones here, with their elaborate *makara*-terminals and lion-figures, are presumably of wood, but the translation to stone is simple enough and was a process very much in the minds of the masons and stone-carvers of the first two centuries B.C. who were, at Sānchi and so many other sites, carrying out building and sculptural schemes which were directly modelled on wooden prototypes. The lion throne in Hindu iconography has in

[1] R. Chanda, 'Beginnings of Art in Eastern India', *Memoirs of the Archaeological Survey of India*, no. 30 (Calcutta, 1927), p. 44; N. G. Majumdar, *A Guide to the Sculptures in the Indian Museum* (1937), p. 73.

[2] J. P. Vogel, 'La Sculpture de Mathurā', *Ars Asiatica*, XV (1930), pl. XI.

[3] J. Fergusson, *Tree and Serpent Worship* (1868), pls. LXXI, LXXIV and XCII.

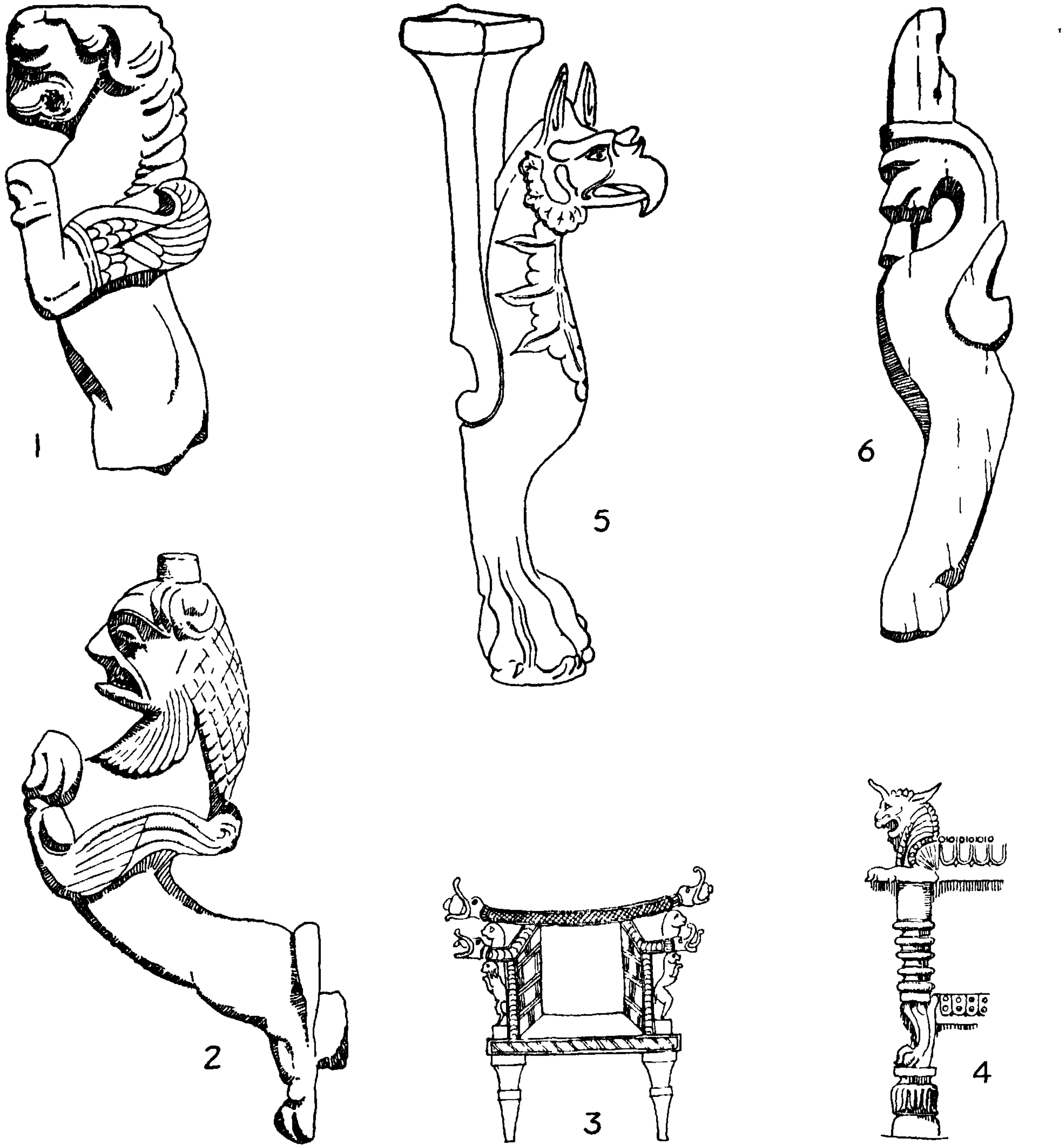


FIG. 5. *1, stone figure from Pāṭaliputra (one of a pair), ht. 27 ins., now in the Indian Museum, Calcutta, third–second century B.C.; 2, stone figure from Mathurā, ht. 34 ins., now in the Lucknow Museum, probably first century A.D.; 3, throne with* makara *and lion figures from a carving at Amarāvatī (after Fergusson), second century A.D.; 4, leg of throne from a carving at Naksh-i-Rustam, Persia, Achaemenid (after Sarre and Herzfeld); 5, bronze leg of throne from Persia (one of a pair), probably Achaemenid, ht. 20½ ins. (after Pope); 6, wooden leg of chair, originally painted, from Niya, Khotan, ht. 19 ins., third century A.D. (after Stein)*

fact a recognized name—*siṁhāsana*—and an excellent representation of a throne with lion figures in the position I have assumed for the Patna griffins is contained in the well-known statue of Vima Kadphises from Maṭ near Mathurā, where the Kushan ruler is sculptured life-size and in the round, seated on a throne the front legs of which are formed of standing lion-figures.[1]

If therefore we accept the probability of the Patna griffins having formed part of a ceremonial chair or throne we may consider the probable origins for such a form. The use of stylized animals for such a purpose is of course relatively common in the ancient world and there is always a possibility that the idea is an independent invention within India, but the actual griffin types significantly point to a more probable origin outside the Mauryan empire. The debt which the culture built up by Chandragupta Maurya and his successors owed to that of later Achaemenid Persia has long been recognized; the imperial organization with its Royal Road, the pillared hall at Pāṭaliputra built on Persepolitan lines, architectural details in pillar capitals, etc., the opening formula and the whole method of setting up the Aśokan Rock-edicts, and even curious details of court ritual such as the royal hair-washing—all these go to show the close contacts in ideas which subsisted between Persia and India in the third century B.C. It is not remarkable, therefore, that we should find that the legs of the Achaemenid royal couch, as shown for instance in the Naksh-i-Rustam reliefs,[2] are in fact formed of griffins not at all dissimilar from the Patna beasts in essentials (fig. 5, 4), and there are in existence two pairs of legs of actual chairs or thrones in bronze from Persia with the griffin-motif brilliantly carried out (fig. 5, 5).[3] The date of these bronze objects is debated; they have been claimed as Sasanian as well as Achaemenid and, although stylistic evidence is not unambiguous for either dating, the earlier date certainly does not seem in any way unlikely. Their interest with regard to Indian parallels lies in the fact that a griffin-figure of exactly the same style, down to details of the foliated ornament on the chest, has been found in Afghanistan, and may be a significant pointer to contacts between Persia and India in Achaemenid times.[4]

The Indian evidence suggests, as we have seen, that the lion- or griffin-throne idea continued well into the early centuries A.D. in India, as of course it did elsewhere. Fig. 5, 6 shows a very rough provincial form in wood from Khotan dating from mid third century A.D.,[5] and examples could be cited from all over the classical world, including the remote province of Roman Britain at this time.[6] Its use on royal furniture continued in Persia through the sixth and seventh centuries A.D., when the Sasanian monarchs are shown with couches supported on griffins and similar creatures.[7] Here it had presumably acquired a certain ritual significance as an essential part of the royal throne with a history going back to the days of Cyrus and Darius.

To sum up: the two stone figures of griffins from Patna seem likely to have formed part of a stone chair or throne which itself formed part of the furnishings of the Mauryan palace there. The throne-type probably derives from Achaemenid Persia, and would be one more piece of evidence for the connection between the two civilizations from the early third century B.C. onwards.

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[1] J. P. Vogel, op. cit., pl. II.
[2] F. Sarre and E. Herzfeld, *Iranische Felsreliefs* (1910), fig. 5 Cf. also Perrot and Chipiez, *Hist. de l'Art en Antiquité*, V, fig. 324.
[3] Pope and Ackerman, *Survey of Persian Art*, IV, pl 240.
[4] Ibid., I, 719-720. The Sasanian dating is here accepted but the Achaemenid possibility is discussed with some approval.
[5] A. Stein, *Ancient Khotan*, II, pl. LXX.
[6] T. D. Kendrick, *Anglo-Saxon Art* (1938), pl. XVI, 2.
[7] See for instance *Survey of Persian Art*, IV, pls. 203 (Chosroes I); 208A (Bahram Gor), 239B (Bahram II).

TERRACOTTA FIGURINES OF AHICHCHHATRĀ, DISTRICT BAREILLY, U.P.

By V. S. AGRAWALA

In Ancient India *no. 1 was published a summary classification of some of the principal pottery-types found during the excavations of 1940–44 on the site of Ahichchhatrā. The Superintendent of the Museums Branch of the Archaeological Survey of India has now undertaken a similar classification of the terracotta human figurines from the same excavations, leaving the animal figurines for a future occasion. The classification is based upon a rough-and-ready system of stratification which falls short of modern standards but may be allowed a certain weight where the evidence is sufficiently abundant to cross-check itself. Fortunately the terracottas from the site are numerous, and, in respect of recurrent types, the sequence may be regarded as reasonably established. It thus marks a considerable advance upon the diverse typological classifications which have in the past been a source of controversy rather than a substantive contribution to knowledge.*

CONTENTS

INTRODUCTORY

CLAY figurines may be regarded as the poor-man's sculpture and have great value as sources of social and religious history.

In India the art of making figurines of baked clay is of high antiquity. At Harappā, Mohenjodaro and other chalcolithic sites in Sind and Baluchistan, terracottas have been found in large numbers. Historical sites also in North India, such as Pāṭaliputra, Basārh, Rājghāṭ, Kosam, Mathurā, Sankisā, Besnagar, Pawāyā, Nagarī, Taxila and now Ahichchhatrā[1], have yielded a mass of terracotta material, most of which still awaits systematic study.

The excavations at Ahichchhatrā were carried out from 1940 to 1944 under the direction of the late Rao Bahadur K. N. Dikshit. During the four seasons' work an approximate time-sequence was established, and it is on the basis of this time-sequence that the present analysis has been prepared. For purposes of record the whole site was marked out on the general site-plan in 500-foot squares, each square being numbered with a capital letter of the alphabet as A, B, C, etc., on the east-west line and by Roman numerals I, II, III, etc., on the north-south line. Each 500-foot square was sub-divided into 100-foot squares, which were again divided into 10-foot squares, and each of these 100 sub-divisions was numbered 1*a*, 1*b*, 1*c*, 1*d*, 1*e*, 1*f*, 1*g*, 1*h*, 1*j*, 1*k*, and thus up to 10*k*.

Further, the ten wholly or partially excavated areas or plots on the mound were designated as ACI, ACII, ACIII, ACIV, ACV, ACVI, ACVII, ACVIII, ACXII and ACXV.

Thus the number 'ACIII, KIX/P9*a*, -61' on a figurine shows that it was found at Ahichchhatrā, plot III, in 500-foot square KIX, in 100-foot square P, in 10-foot square 9*a*, at the 61-foot level below a datum fixed at the top of the highest mound inside the fortification, about 75 feet above the level of the fields outside.[2] Of these plots, ACIII is the most

[1] *Ahichchhatrā* ending in long *ā* is the correct spelling supported by ancient texts and also by a clay sealing of the Gupta period (no. 963, ACIV) reading *śrī-Ahichchhatrā-bhuktau kumārāmātyādhikaraṇasya*, 'of the office of the Kumārāmātya in the division of Ahichchhatrā'.

[2] The fallaciousness of this system has been pointed out in *Ancient India*, no. 3 (1947), pp. 144ff. It must be emphasized that the 'stratification' of the Ahichchhatrā excavations was of a summary nature and is valid only for general inferences. Nevertheless, no similar bulk of terracottas of the historic period from India has hitherto received even this degree of documentation, and the main results appear to be well substantiated.

representative in its range. Nine strata, covering approximately the period from 300 B.C. to A.D. 1100 were recognized, and Mr. A. Ghosh, who was in charge of the site, observes that 'Among the excavated plots it was in ACIII alone that we started from a sufficiently high level to be sure that the area had been in occupation till the last days of the city. Here we reached the natural soil by cutting through successive strata. A cross-section of all the structural stages of Ahichchhatrā, however limited in extent, has thus been exposed to view, and the knowledge gained affords a stratigraphical basis for dating objects found elsewhere in the city'.[1] Fortunately, the number of terracotta-finds from ACIII was far in excess of the finds from all other sites put together. Site ACIII therefore may be taken to reveal the norm of the succession of styles and types.

The following chart shows the chronological position allotted to the different strata by Mr. A. Ghosh:—

Stratum IX: before 300 B.C.
Stratum VIII: 300 to 200 B.C.
Stratum VII: 200 to 100 B.C.
Strata VI and V: 100 B.C. to A.D. 100.
Stratum IV: A.D. 100 to 350.
Stratum III: A.D. 350 to 750.
Stratum II: A.D. 750 to 850.
Stratum I: A.D. 850 to 1100.

For purposes of description, the terracottas are grouped into subject-categories.

GROUP I. MOTHER GODDESS

TYPE 1. MOTHER GODDESS (STRATUM VIII: *c.* 300–200 B.C.)

This type is represented by nine figures, seven from ACIII and two from ACV. Only the first four from ACIII can be accepted as evidence for chronological purposes. Nos. 1 and 3 in gray colour are of the same type and style as a considerable group of clay figurines from Mathurā published as 'early' by Dr. Coomaraswamy[2] and myself.[3] Outside Mathurā, similar female figurines of the early period are extremely rare and these two figures along with no. 6 (ACIII 3542, found in a later filling) may well have been imports from Mathurā rather than products of the local school. These archaic figures are entirely modelled by hand and, except no. 7 which is worthless as evidence, seem to be the work of skilful craftsmen intent on doing their job well in the absence of moulds.

The figures conform to a pre-determined iconographic pattern. An outstanding feature is the applied and punched decoration used freely and with variation. At times the collar, the necklace and the girdle are appliqué. There is no instance of the applied eye at Ahichchhatrā or at Mathurā, although this is a common feature in the Mother Goddess figurines from Gandhāra illustrated by Colonel Gordon.[4]

The dating of the figurines of this group is an important point. All the Mathurā figures were stray finds from old mounds and not from controlled excavations. Their early dating was based solely on their very archaic style. They are all hand-made and the facial

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[1] 'The Pottery of Ahichchhatrā', *Ancient India*, no. 1 (1946), p. 39.

[2] A. Coomaraswamy, 'Archaic Indian Terracottas', *Ipek*, 1920, figs. 11 and 13.

[3] V. S. Agrawala, 'Mathurā Terracottas', *Journal of the U P. Historical Society*, IX, pt. II (July 1936), figs. 1–8.

[4] D. H. Gordon, 'Early Indian Terracottas', *Journal of the Indian Society of Oriental Art*, XI (1943), pp. 136–195, pl. IX, figs. 1, 2 and 3; pl. VIII, fig. 6.

features are like those of a bird or animal. Both these characteristics exist in the Ahichchhatrā figures also. Although, owing to the very limited exploration of the lowest levels in ACIII, the evidence at our disposal is confined to a few fragmentary specimens, of which two in gray colour are the more relevant to our purpose, the Ahichchhatrā specimens seem to supply firm data for assigning this group of Mother Goddess figurines to the pre-Śuṅga period. They belong to Stratum VIII, for which a date between 300 and 200 B.C. is proposed by the excavator. It may be that the type lasted on for another hundred years. Whether the date for the earliest introduction of this archaic hand-made type can be pushed back into the pre-Maurya period, as Dr. Coomaraswamy and myself once suggested on stylistic grounds, can neither be proved nor disproved by the present limited evidence. Subject, however, to verification from strictly controlled excavations at Mathurā or at Ahichchhatrā itself, it appears that the type was known in the third century B.C. and properly belongs to the Maurya period.

The identification of the goddess is another relevant question. That the craftsmen attempted to give expression to a formula comprising certain well-defined features must be readily conceded. The bird- or animal-like face, prominent breasts, broad hips, triple-rosetted head-dress, collar, necklace and conspicuous girdle form the elements of this formula. In none of the figures of this group from Ahichchhatrā or from Mathurā is nudity ever indicated, although any signs of drapery are also wanting. From the popularity and the wide range of the formula at the back of these figures the inference is irresistible that they represent a type of the Mother Goddess. Whether this goddess was Aditi, Indrāṇī, Māyā, Vasudhārā or Padmāśrī or even Anaitis is more than we can determine in the present state of our knowledge. The type appears indeed to preserve an earlier tradition of an undifferentiated Mother Goddess.

1. Head and bust of female figure (ht. 1·8″) in gray colour with applied and incised decoration. This is a characteristic example of the archaic style in which the whole figure was modelled by hand. It has animal-like features, the nose (now damaged) being almost horizontal. The appliqué eyes and the ears are now chipped off, the right ear being indicated by a slight mark. The hair was indicated by parallel appliqué strands descending on the back up to the line of the arm-pit, but is now chipped off leaving slightly grayish markings on a black surface. The number of strands seems to have been five on a few specimens and three on others. This style of applied hair-braids is shared by a majority of the female figures of this type both from Mathurā and here. An applied collar was fixed round the neck but is now detached; a small perforation-mark in the centre represents former prickings on the collar. Another pendant necklace, passing over the shoulders and above the breasts, was made by a roll of clay, now partly preserved and marked by a series of pin-heads. It is clear that these were produced by affixing seeds of the *bājrā* (*Panicum spicatum*) plant. The breasts were also applied but are now missing. The arms extended horizontally from the shoulders but were bent abruptly from the elbow; the fore-arms are now missing. Being found in Stratum VIII of ACIII, the figure should be assigned to the period 300–200 B.C. The specimen is closely related to the type of figure 2 illustrated in my paper on Mathurā terracottas[1] and now provides a sounder basis for its early dating.

No. 8884, ACIII, KIX/P9a, -61′ below datum line; Stratum VIII: 300–200 B.C.

2. Fragment of a female figure from breast to thighs (2″). Hips and waist form a well-defined triangle, the former being broad and connecting these figures with a steatopygous type (*pṛthu-śroṇi*), and the latter slim (*madhye saṅgrāhyā*), an ideal of beauty in early times.[2] The navel is indicated by a perforated mark made with a sharp pointed tool; the girdle is shown by a deep groove underlined by a row of sunken pin-heads; the legs are straight and separated by a prominent arch. Red clay with brown slip.

No. 8934, ACIII, KIX/P9a, -60′; St. VIII.

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[1] V. S. Agrawala, op. cit.

[2] *Śatapatha Brāhmaṇa*, I, 2, 5, 16.

3. Fragment (2·25″) of the right side of a female figure from waist-line to foot. It is of gray terracotta with traces of black slip. Slender waist; broad hip; short stumpy foot undigitated. The most prominent feature is an elaborate jewelled girdle half an inch broad, marked by three lines of punched circlets enclosed between two grooved lines.

Stylistically it belongs to the same archaic group as nos. 1 and 2. The figure belongs to Stratum VII, corresponding to 200–100 B.C., probably approximating to the earlier limit.

No. 8797, ACIII, KX/L1b, -58′; St. VII : 200–100 B.C.

4. Torso of a female figure (2·5″), head and portion below girdle missing. Applied collar with two lines of pin-head marks; a pendant necklace passing round the breasts with vertical string between them. The arms, formerly projecting straight from the shoulders, are now broken; prominent breasts with nipple marks and worked from the material of the torso; navel shown by a perforation mark; girdle rendered by a horizontal flat band with indented grooves. Buff clay with brown slip.

No. 8842, ACIII, KX/L1d, -58′; St. VII.

5. Female head (1·25″) with emphatic bird-like features, pointed nose, mouth indicated by a short slit-mark, and the two nostrils by small pin-heads. Diamond-shaped incised eyes with pupil indicated; ears projecting on both sides and stamped with single rosettes. A third rosette is stamped in the centre of the forehead forming the three-rosetted head-dress in its simplified form which later assumes ornate development.

The rosette consists of two intersecting lines with a dot in each angle, and is a symbol found on the early punch-marked coins. Brick-red colour.

No. 8933, ACIII, KX/L2c, -56½′; St. VI : 100 B.C. to A.D. 100.

6. Fragment (2″) of female figure from abdomen to thighs. Navel marked by a big sunken six-armed rosette resembling a *shaḍara-chakra*, another punch-mark symbol. Broad and applied indented girdle similar to that on no. 4. Whitish gray colour blackened in places in firing. The fragment was found in a later filling, doubtless out of context.

No. 3542, ACIII, KX/F5d, -43′; St. III*a*.

7. Fragment (2·5″) of a female figure from waist to left foot. Prominent girdle shown by a single row of punched circlets between two horizontal grooved lines produced by pressing the marking rod on wet clay. Legs separated by an arch and the left foot shown without details of toes. Gray figurine baked to the hardness of over-burnt brick. Both the modelling and stamping show careless work.

The level and the style seem mutually to disagree. Pending fresh evidence, therefore, it is safe to discard both this and no. 6 as evidence for chronology.

No. 1347, ACIII, KX/F7e, -41′; St. III*a*.

The following three figures (8–10) were found in a refuse-pit with mixed filling in ACV and, although archaic in style, are not firmly dated.

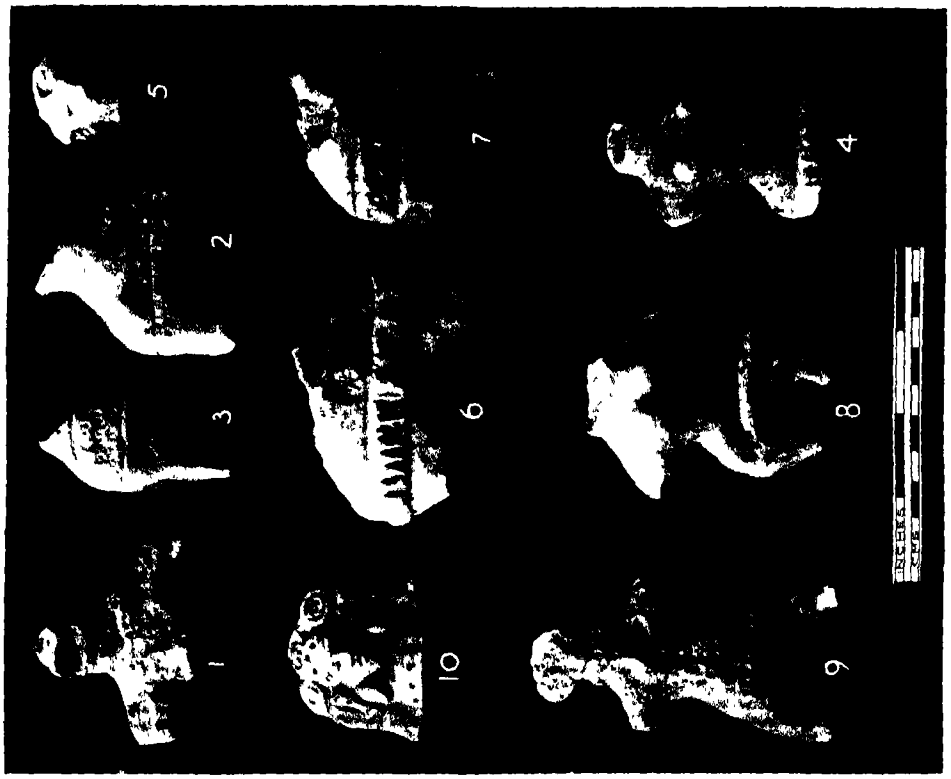
8. Headless female figure (3″) with tapering arms extending straight from the bust and ending abruptly without details. Low breasts worked from the material of the torso; slender waist and broad hips, girdle indicated by an applied roll of clay with a row of pin-heads; navel not indicated; legs like short tapering stumps without details of feet. Buff clay with reddish brown slip.

The finds from the refuse-pit in ACV show that the pit was filled with sweepings from the residential quarters of the Pañchāla period (100 B.C.–A.D. 100, corresponding to St. VI and V of ACIII), which presumably covers the date of this figurine.

No. 6196, ACV, QVIII/P5h (Refuse-pit), -79′.

9. Female figurine (3·5″) with face mutilated. The head-dress was of the three-rosetted type, of which a boss with punched marks is still preserved at the right ear. Similar punched decoration occurs on the appliqué collar, necklace and girdle. An elliptical necklace passing outside the breasts reaches almost to the line of the navel which is not marked. The design of the necklace with the diametrical string is similar to that on no. 4, unearthed in Stratum VII in ACIII. The prominent round breasts are chipped off, leaving circular marks.

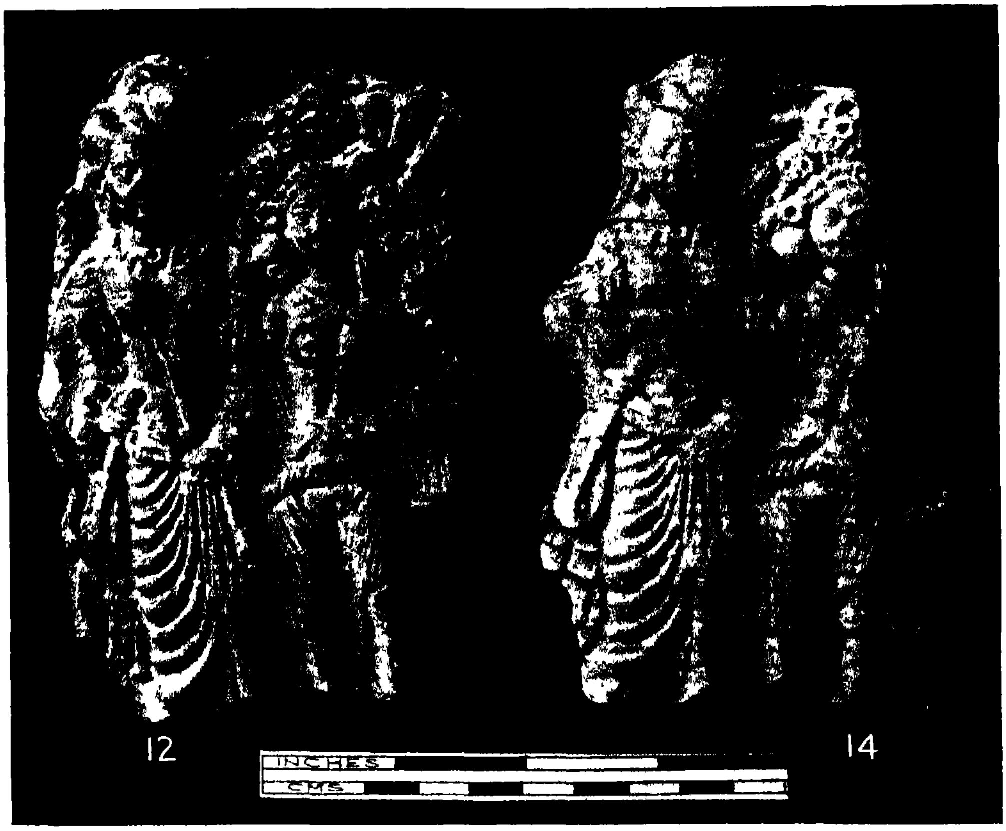
PLATE XXXI



A 1–9, *Type 1, Mother Goddess. 10, Type 2, female figure related to Mother Goddess*



B. *11–17, Type 3, Sub-type (i), Mithuna plaques; 18, mould of the same Type; 18a, cast from 18*



Type 3, Sub-type (i), Mithuna plaques

Short straight arms; girdle marked by a single row of punched points between two lines; broad stumpy legs disproportionately short. Fine kneaded clay, baked very hard. Light brownish colour.

No. 3180, ACV (Pit), -65′.

TYPE 2. FEMALE FIGURE RELATED TO THE MOTHER GODDESS

10. Head and fragmentary bust of a female figure (1·6″). In this type the head with its framing head-dress is pressed out of a mould and joined to a body worked by hand. The head-dress is simple but is distinguished by two features: (i) trefoil pattern, and (ii) streamers or bands falling on each side of the head. Of the trefoil head-dress, the two side-projections are each marked by a double circle with a central pellet and the middle one by a symbol consisting of two intersecting lines with a dot in each angle, as seen on no. 5.

The side-streamers consist of an ornament formed by a central axis between two Nāgas. This symbol also occurs on punch-marked coins, and may for the sake of convenience be designated as the *Nāga-mudrā* symbol. The three streaks of this symbol are punched with small nail-head marks, most probably indicating pearl-strings. The hair is shown by two slight ridges forming an angle above the forehead and adorned by a similar string of pearls. The oval facial type with half-open eyes looking downward is suggestive of an iconographic formula. Heavy round *kuṇḍalas* are worn in the ears. Gray colour, hard-baked fine clay.

This is the only example from the Ahichchhatrā excavations of an archaic female figurine having a moulded head and a modelled body. The presence of the punch-mark symbols and trefoil head-dress and the general style and expression of the eyes point to its unmistakable association with a pre-established Mother Goddess type, as in the case of Type 1.

No. 6277, AVC (Pit), -71′ 6″.

GROUP II. EARLY MOULDED PLAQUES

In this group are classified the early moulded figures, both male and female, produced completely from a mould. Of the forty-five Ahichchhatrā specimens, only eight are gray and the rest red. The whole group may be subdivided as follows:—

(*a*) Couples of the Mithuna and Dampatī Types.
(*b*) Allied female figures.
(*c*) Allied male figures.

TYPE 3. MITHUNA FIGURES

The Mithuna showing a male and a female figure standing side by side is the leading type at Ahichchhatrā, represented by twelve specimens, about 30 p.c. of the figures in the group. This may be attributed to local predilection, since both in Mathurā and Gandhāra the number of Mithuna specimens amongst the moulded figures is very limited.

It is difficult to postulate a precise religious significance for the Mithuna figures and for the individual male and female specimens derived from them. Association with an original cult of fertility may be claimed by the presence of sacred symbols on the head-dress and the necklace, and also in one instance by the indication of nudity. At best they seem to be related to the ideal 'man-and-woman' figures represented at Sānchī as forming part of the repertoire of the idyllic land of Uttarakuru, where Mithuna pairs endowed with eternal youth and beauty are born from Wish-fulfilling Trees (*Kalpavṛiksha*) and spend their lives in continuous pleasure. In the most expressive specimens the male figure holds a lute and the woman embraces him with her right hand and has her left hand placed akimbo.

Both on stylistic and stratigraphical grounds the Mithuna plaques fall into two Sub-types, viz.: (i) an earlier Sub-type of the proper Mithuna or 'man-and-woman' figures, and (ii) a later Sub-type in which the male and female figures show affinities with the stone figures of early Indian art and may be styled the Dampatī or 'husband-and-wife' Sub-type.

In the Mithuna Sub-type the male is the left-hand figure of the pair ; in the Dampatī one this position is reversed and the female figure invariably fills the left-hand side. The first Sub-type may be dated in the Śuṅga period, *c.* 200 to 100 B.C. with a probable extension into the Pañchāla period (100 B.C.–A.D. 100) and the second may be assigned to the Pañchāla period proper. The chronology supplied by four specimens from ACIII supports this inference. The rest of the related figurines come from the Pit in ACV and are not of much stratigraphical value.

In all cases, figures from ACIII will be described first and then the corresponding types from ACV.

Sub-type (i). Early Mithuna plaques

11. Mithuna plaque (2·3″) showing a male and a female figure standing side by side. Portion below waist-line missing. The head-dress of the woman is very elaborate, consisting of two lateral masses of turban and a central boss, all stamped with the same decoration and symbols as in the better-preserved specimen, no. 12 below. The three sacred symbols stuck on the left side consist of an arrow-head (*bāṇa*), a banner (*dhvaja*) and a goad (*aṅkuśa*). The dependent tassels, the two streaming bands and the knotted lop-sided turban of the male figure are similar to those on no. 12. The man wears an upper scarf passing across the chest and falling from the left shoulder. Red sandy clay with sprinkling of mica.

No. 8820, ACIII, KIX/K9k, -56′ 6″; St. VII: 200–100 B.C.

12. Mithuna plaque (5″×3·5″ breadth) showing a male on the left and a female on the right. The man holds in his right hand near the girdle the upper end of a lute. The woman is touching with her right hand the girdle of her husband, the left resting on her hip. The left hand of the male figure embraces the woman on her back. He is wearing a turban with a protuberance on the left side, covering a mass of hair or resting on a globular core. This characteristic style of head-dress is found on all the male figures of this Sub-type. Round the neck is an ornament consisting of five crescents with thickened ends strung together and placed in alternating position. On his shoulders is a rich ornamental scarf with a broad border of plaited plaques and stripes, the folds of the scarf covering the right arm and the double-plaited ends falling on the right side below the knee. He is wearing a *dhoti* with parallel oblique folds on the right leg and vertical folds on the left, and also a girdle the two ends of which form on the left thigh a bulbous tassel. Marks of stippling on the bust of the male figure indicate a gauze-like garment for the upper part of the body. A piece of straw inserted by chance in the mould has left a scar across the length of the figure from right nipple to right knee.

The decoration of the female figure is much more elaborate. Her hair is adorned with a double pearl-string terminating at the sides in circular rings of pearls near the ears. Similar pearl-strings fringing the hair on the forehead are a feature of the female figures of the Śuṅga period, a notable example being the Kosam terracotta figure at Oxford,[1] with which our specimen has also other points in common. The head-dress consists of two prominent side-rolls of a turban flanking a central boss stamped with a floral design. On proper left side it shows firstly a streaming band falling to the elbow adorned with rosettes alternating with a three-streaked symbol. The next band has a row of three sacred symbols—an arrowhead (*bāṇa*), a banner (*dhvaja*) and a goad (*aṅkuśa*) (fig. 1, 2)—surmounting a tasseled ornament of four strings attached to a round plaque. The last two symbols appear also in the head-dress of the Oxford figure,[2] and in the pair of amulet-strings carved on a Sānchī pillar.[3] There are three additional symbols woven in her long necklace, namely, a dagger on the left, a puppet (*śrīvatsa*) in the centre, and, on the right, a *vajra* with a pointed angle and prongs. This type of necklace (fig. 1,1)[4] is found not only on all the female figures of the Mithuna Sub-type, but is a regular feature on the archaic terracottas of the modelled-*cum*-moulded variety from Mathurā.[5] Of the eight sacred symbols seen on the figure,

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[1] E. H. Johnston, 'A Terracotta Figure at Oxford', *Journal of the Indian Society of Oriental Art*, X (1942), 94–102.

[2] Ibid., p. 96.

[3] J. Marshall, *Monuments of Sānchī* (Delhi, 1940), II, pl. XXXVII*a*; also I, pp. 44-45.

[4] The line-drawings accompanying this article are the work of Mr. C. Sivaramamurti, to whom my thanks are due.

[5] 'Mathurā Terracottas', figs. 6, 10, 12, 13.



FIG. 1. *Typical ornaments and hair-dresses. 1 and 2 = no. 12 ; 3 = no. 90 ; 4 = no. 303 ; 5 = no. 175 ; 6 = no. 137 ; 7 = no. 144 ; 8 = no. 148 ; 9 = no. 108 ; 10 = no. 265 ; 11 = no. 155 ; 12 = no. 157 ; 13 = no. 160 ; 14 = no. 164 ; 15 = no. 168 ; 16 = no. 102 ; 17 = no. 286*

the presence of the puppet or *śrīvatsa* is of interest as it virtually reproduces the form of the archaic Mother Goddess classed under Group I (see especially no. 4).

The other ornaments consist of a flat torque, heavy rings in the ears, bracelets, and puffed-up flowery bangles on the hands. The dress consists of a scarf covering both shoulders and a *dhoti* with folds drawn in rolls on the sides. In spite of this, a notable feature of this specimen is the indication of nudity, produced by inserting a grain in the mould at the pubic triangle. Nos. 13 and 14 below are from the same mould but without the sign of nudity. Although a common feature in the Mother Goddess figurines from Gandhāra, the indication of sex is practically absent in the Ahichchhtrā and Mathurā female figures of the early class.

The colour of the terracotta is gray-black ; the clay shows a slight mixing of rice-husk and signs of the use of a fibrous brush on the back.

No. 6191, ACV (Pit), -69′.

13. Fragment of a Mithuna plaque (2·5″) produced from the same mould as no. 12. Broken in an oblique line from the mouth of the male to the shoulder of the female; the portion below the thighs also missing. Gray colour with traces of black paint.

No. 6212, ACV (Pit), -60′.

14. Mithuna plaque (4·7″) from the same mould as no. 12. The only difference is that the draped female figure is without the added mark of nudity. Portion below ankles and right and left upper corners missing. Buff colour with brownish slip. Marks of the use of a scraper on the back.

No. 6134, ACV (Pit), -67′.

15. Mithuna plaque (1·4″) similar to above but smaller in size. The lower part of the sound-box of the lute is visible near the leg of the male figure. The feet of the couple, missing in other examples, are preserved here, showing the female figure wearing anklets. Gray colour.

No. 6133, ACV (Pit), -69′.

16. Mithuna plaque (3·5″) with details of drapery and decoration similar to the above specimens. The chief difference is that the male figure is holding a flower instead of a lute in his right hand. The woman is touching the girdle of the male figure, indicating a tendency to emphasize the erotic aspect of the subject. Light red colour. Portion below ankles of the male figure and the knees of the female figure missing.

No. 6127, ACV (Pit), -66′ 6″.

17. Lower half of a Mithuna plaque (2·2″). Details similar to no. 16. Red clay.

No. 6132, ACV (Pit), -67′ 6″.

18. Fragmentary mould of a Mithuna plaque (2″), showing the head of a woman and a portion of the male figure. The details of the hair-bonnet and the floral crown, and the lateral mass of turban with sacred symbols are the same as in the preceding figures. The relief from this mould is not so high as in the other figures.

No. 6193, ACV (Pit), -69′.

Sub-type (ii). Later Dampatī or 'husband-and-wife' plaques

The Dampatī plaques comprised under this head are distinguished from the preceding group by the following features:—

(i) The position of the male and the female figures is reversed, the female now occupying the left side.

(ii) The plaques have decorative borders and background stamped with flowers, rosaces, spirals and lozenges bisected into triangles. The edges of the plaques are straight and appear to have been made from regular rectangular moulds. The border of the earlier group follows an irregular outline.

(iii) The details of the decoration of figures are much simpler than in the previous ones.

(iv) Drapery and ornaments, the hair-dress in the female figures, and the conspicuous turban of the male figure, as also the facial types, are related to known examples of early Indian sculpture.

(v) The poses and subjects are voluptuous, pointing to their secular character.

(vi) In three specimens out of four there is a suspension-hole which shows that these were hung on walls as objects of beauty or illustrations of erotic subjects.

The figures are divested of all religious feeling and are types of youthful men and women devoted to love. They conform to the descriptions of the classical poets like Bhāsa, Aśvaghosha and Kālidāsa. In art the type had become established much earlier, at least in the Śuṅga period (second century B.C.), and it continued into the Pañchāla (100 B.C.–A.D. 100), Kushāṇa and Gupta periods, when it is often repeated as a favourite motif in the stone reliefs.

Two of the plaques are from ACIII site. No. 19 belongs to Stratum VI (100 B.C.–A.D. 100), and no. 20, from Stratum IV*c*, should be about A.D. 100. Possibly the specimen was made a century earlier, in the early Pañchāla period, and has survived into its present level. Although this Dampatī type had already been evolved earlier in sculpture at Bharhut about the second century B.C., its adoption in a clay-medium by humble potters on an extensive scale is a later development. In other cases also, types in clay appear subsequently to well-established types in stone, as the popularization of an established theme. There is thus every probability that, amongst the figures of couples, the Mithuna type came first and the Dampatī type followed as a derivative with its own special features.

19. Dampatī plaque (2·9″×3·4″) showing an amorous couple, with the woman standing on the right side of the man; portion above navel missing. Right hand of the female figure placed on a beautiful girdle of double-beaded string. She is wearing a scarf, a long outer garment consisting probably of combined tunic and skirts fastened round the body by a girdle, and heavy anklets. The male figure wears a flat waist-band and a *dhoti* falling in folds on sides of the legs, leaving the knees bare. Lower border of the plaque decorated by a row of flowers (*phulla-vallī*) laid between two beaded lines.

No. 8690, ACIII, KIX/P9a, –56′ 6″; St. VI*c*: 100 B.C.

20. Dampatī plaque (5·2″×3·2″) showing a man and a woman with their left and right arms crossed at the back and hands placed on each other's shoulders. The right hand of the woman is placed on a triple-beaded girdle. Her plaited hair is covered by a bonnet decorated with rows of petals, a design found on numerous Bharhut figures of men and women.[1] She wears pendants in her ears, a flat triangular necklace of three strings, and a triple armlet on the right arm. The male figure wears a knotted turban covered with petalled decoration, flat torque and necklace, a scarf passing across the body to the left side, a cloth with a front fold arranged between the legs, and a girdle knotted in a graceful loop in front, like the cloth girdles on Bharhut figures.

Red plaque with a thin lozenge border, and a suspension-hole in the centre above.

No. 8574, ACIII, KIX/P9c, –52′; St. IV*c*: about A.D. 100.

21. Fragment of a Dampatī plaque (1·5″) showing the head of a male figure, from the same mould as no. 20.

No. 6128, ACV, QVIII/P4j, –64′.

22. Dampatī plaque (6·2″×4·2″) showing the figures in an amorous attitude, the male touching the breast of his partner. On her head a bonnet consisting of pearl-strings covering the hair, which is gathered in a braid towards the right. Ornaments as on no. 20 with the exception of armlets. She is holding with her right hand

[1] L. Bachhofer, *Early Indian Sculpture* (1929), pl. 32.

the ends of a scarf tied loosely round her hips, as in some of the Bharhut figures.[1] The male figure has a two-knotted turban. The slightly projecting base is decorated with four floral bosses and two spirals. A suspension-hole above. Red colour. Break at the neck-line, the two pieces being now joined together.

No. 6692, ACV, QVIII/P1h, -60′.

TYPE 4. ALLIED FEMALE FIGURES

The material under this head consists of two Sub-types: (i) The first reproduces the elaborate head-dress and decorative details such as the sacred symbols, streamers and long necklace seen on the female figures of Mithuna plaques of Sub-type 1 of Type 3 (nos. 11–18). A corresponding male type with the same kind of head-dress and the lute also occurs (below, no. 48). (ii) The second Sub-type consists of a free evolution of this type comprising miscellaneous figures. The reliable stratigraphic evidence of a single figure, no. 23 from ACIII, shows that the type was known in Stratum VII, i.e. about the same period as the plaques of the Mithuna type. Special types, such as the dancing female figure and mother and child, come from the Pit in ACV and cannot be used for firm dating. They must, however, have preceded the Kushāṇa epoch and may be tentatively assigned to the Pañchāla period, between 100 B.C. and A.D. 100.

Sub-type (i). Allied to the Mithuna Sub-type

23. Elaborately decorated woman (2·5″), related to the Mithuna Sub-type (cf. no. 12). Double pearl fringe on forehead; turban with two lateral masses and a central lotus, that on the left side having a long streamer, a pendant of tassels and three symbols, the arrow-head, banner, and goad, and that on the right twisted rolls of turban above a conical mass of hair; button ear-ring in left ear. Elaborate drapery with parallel rows on border. Buff colour with patches of black and brown slip; tongue-relief with its background cut off; portion below waist-line missing.

No. 8878, ACIII, KIX/P10c, -57′; St. VII: 200–100 B.C.

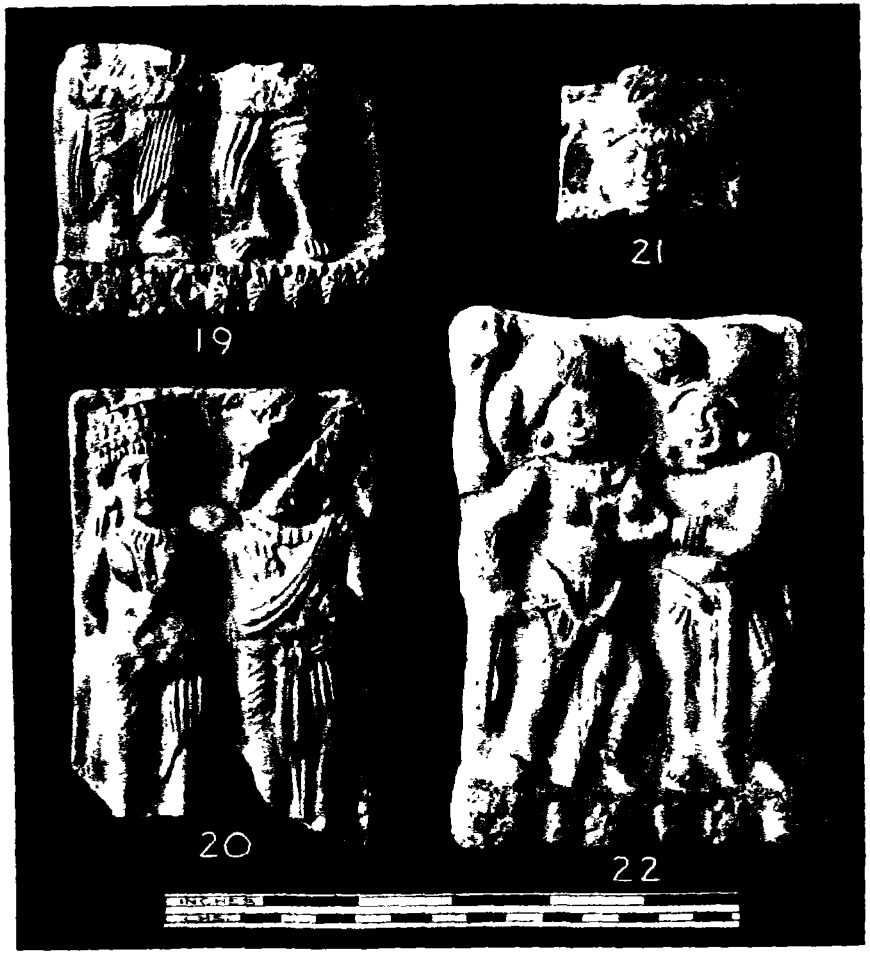
It is evident that independent figures like these are co-eval in time with the Mithuna plaques of Sub-type (i).

24. Female figure (2·4″) similar to no. 23, with which details of the head-dress agree closely. The double row of taurine symbols on the streamer is clear on this specimen. The left-side roll of the turban shows an arrow-head and a banner, and the tassel-ornament dependent from a plaque consists of six or more strings with rows of elongated cylindrical beads alternating with spacers. The arms are covered with folds of drapery, but the details of the cloth and necklace are not clear. Gray colour with traces of black slip. Portion below waist-line missing.

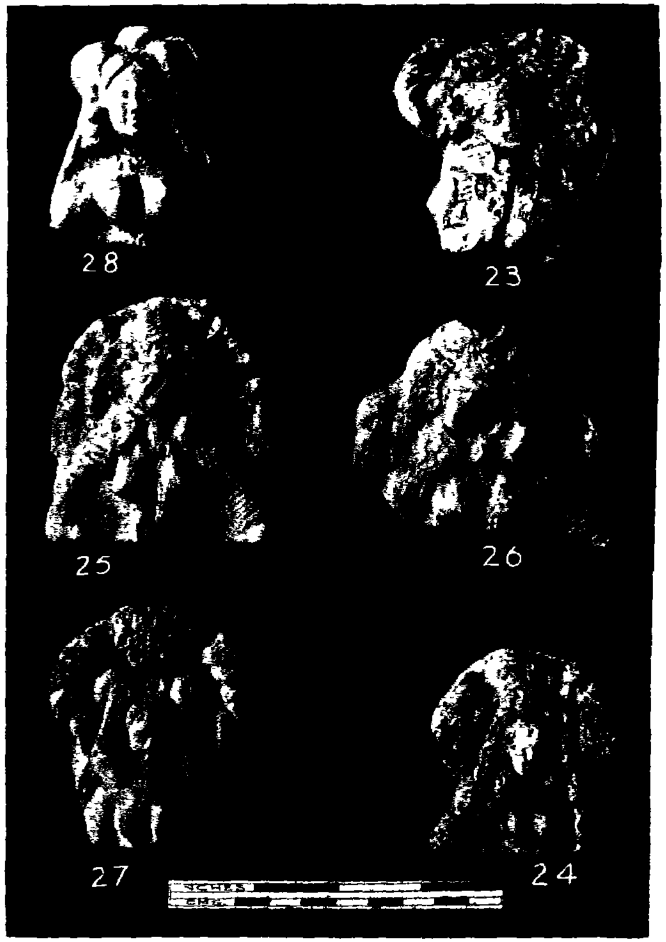
No. 6225, ACV (Pit), -71′.

25. Woman (3·2″) with elaborate head-dress and ornamentation. This and the following figure have a striking similarity with the Oxford specimen published by Johnston and referred to above under no. 12. The hair is adorned with a double string of pearls terminating in two rosettes near the ears, the line of frontal hair being drawn on the forehead in two angular locks. The two projections of the turban are of equal size, the left one not being bigger as in others. It has four sacred symbols on the right side and five on the left. The streamers are each stamped with a series of four *Nāga-mudrā* symbols (two serpents flanking an axis), details of which are clear on the following figure (no. 26). Two pendent pearl-tassels are shown on either side below the sacred symbols. Between the masses of the turban rises the crown with rows of pearl-decorations. The ear-lobes have two highly decorative large round plugs, similar to those in the Oxford figure, the one in the right ear shown frontally and the other from the side (the reverse of the Oxford figure). From each hang four strings

[1] Bachhofer, op. cit., pl. 20, left.



A. *Type 3, Sub-type (ii), Dampatī plaques*



B *Type 4, Sub-type (i), female figures allied to the Mithuna Sub-type*



A *Type 4, Sub-type (i), female figures allied to the Mithuna Sub-type*



B *Type 4. Sub-type (ii), miscellaneous female figures*

of pearls or beads. Round the neck is a broad torque, and on the breasts a long necklace. Folds of the scarf are shown on the arms. The right hand is placed on the waist and the left one is missing. Red colour.

No. 3179, ACV, QVIII/P6h, -65′ 6″.

26. Woman (2·6″) similar to the above in details of drapery and ornamentation.

No. 11147, ACXV, QVIII/Y9d, -51′.

27. Bust of female figure (3·8″) with a rich head-dress derived essentially from the trefoil form of the woman's head-dress on Mithuna plaques, notably the central flowery boss and the two streaming bands punched with circlets. Instead of the sacred symbols, the outer framing of the head-dress is achieved by the rich foliage of the palm-tree. This is more in keeping with the unorthodox scheme of decoration, also seen on a terracotta and a stone figure from Mathurā where the decoration consists of plumes and *aśoka*-leaves respectively.[1] The hair on the forehead shows a recessed pattern. A conical pendant in right ear and a double circular ring in left. Red clay.

No. 11315, ACIII, picked up from the surface. The figure may be placed in *c.* first century B.C.

28. Bust of woman (2·7″) showing a simple trefoil head-dress, with two lateral masses and a central projection. Three holes are pierced in each of the side-rolls of the turban obviously to fix amulets or decorative symbols. Two loose bands fall on the sides. A drum-like ornament is worn in the right ear, and a button-ring in the left. A broad collar round the neck consists of three plaques and two taurines. A sash is tied round the waist. Light buff colour.

No. 6185, ACV (Pit), -70′ 6″.

29. Fragment (2·5″) of a female figurine from thighs to anklets. Legs covered with folds of drapery. By the side of the legs are prominent ends of a long scarf. Left hand wearing bracelets with palm shown outward. Double-looped necklace, the inner one of plaques and the outer one of stripes.[2] A two-petalled ornament similar to the one on no. 23 is visible inside the loop of the necklace. The schematic arrangement of the necklaces and the scarf and the pose of the left hand indicate that the figure was intended to represent a female dancer. Buff colour partially blackened in the furnace.

No. 6189, ACV (Pit), -70′ 6″.

30. Woman (3·5″) standing with feet on a short base-plate. Cast from a rough mould with the fingers and toes not distinctly marked. Hands placed near the ridge of the girdle marked by punched circlets. The figure is wearing a short flounced skirt and the pose is suggestive of a danseuse. Gray-black colour. Marks of use of scraper to peel off surplus clay from the back.

No. 6566, ACV (Pit), -73′.

31. Fragmentary torso of a female figure (2″). Right hand placed on slender waist; left extended up to the girdle holding a garland. Wears tunic and a *dhoti* or skirt. Traces of the thunder-bolt (*vajra*) symbol suspended from the long necklace (cf. no. 12). Gray colour. Marks of scraper on the back and also finger-prints.

No. 6222, ACV, QVIII/P5j, -71′.

32. Standing woman (2·6″) wearing tunic and *dhoti* with folds as on no. 12. Two tassels pendent on each thigh. Right hand resting on waist (*kaṭivinyasta*) and left extended by the side (*latāhasta*), suggestive of a dancing figure. Gray colour.

No. 6548, ACV (Pit), -72′.

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[1] Gordon, op. cit., pl. XII, figs. 6 and 2.

[2] A similar necklace and drapery are seen on a figure from Bulandībāgh illustrated by Gordon (op. cit., pl. XI, fig. 6).

33. Fragment of a female figure (1·9") with feet on a base-plate projecting from the plaque. Folds of lower garment drawn on the sides. Red clay.

No. 6188, ACV (Pit), -70′ 6″.

34. Fragmentary figure (2·8") of a woman enveloped in a mantle so completely that the details of the body are hardly visible. The modelling is flat, almost without relief. The folds are marked with grooves. The style of this figure is distinct from any described so far. Gray colour with traces of black paint, baked to extra hardness.

No. 6537, ACV, QVIII/P5j, -72′.

Sub-type (ii). Miscellaneous figures

35. Woman's head (1·6"), being part of a moulded plaque with hair gathered in a high decorative crown. This arrangement resembles that on the mother-and-child specimen from Mohrā Morāḍu (Taxila) published by Gordon.[1] Double pendants in both ears. Dull buff colour.

No. 6154, ACV (Pit), -68′.

36. Mother-and-child plaque (3·5"). Woman carrying in her left arm a nude child wearing beaded girdle and double necklace. A special feature is a long bandolier-like necklace shown across the body. The figure presents a type familiar in Indian classical art. It comes from the Pit in ACV and may be placed anywhere in the Pañchāla period (100 B.C.–A.D. 100).

No. 6129, ACV, QVIII/P8g, -66′ 6″.

37. Torso of woman (4") holding right hand near breast and left on thigh. Produced from a flat mould with shallow relief. Breasts for the first time shown with nipples. Wearing a scarf, loose-sleeved chiton, and a mantle covering the lower part of the body with two exaggerated folds on the side of the legs. The reliefless modelling, carefully rounded breasts and the drapery are features foreign to the local style. Most probably Parthian. Brick-red colour.

No. 6589, ACV, QVIII/P4j, -73′ 6″.

Another specimen (no. 6151) cast from an identical mould was found in the same 10-foot square at -68′ 6″ level.

38. Figure of standing woman (3·2") in the round pressed out of a double mould. Holds a fly-whisk or a flower in raised right hand; left hand placed on thigh; left leg bent at knee, long braid of hair bisecting the elliptical loop of strands of hair on the back, a style of coiffure familiar in other figures of early Indian art.[2]

No. 6681, ACV, QVIII/P3j, -64′.

39. Bust of a woman (2·2") holding a bunch of flowers in raised right hand and wearing a turban with a high spiral topknot and flat torque and pendent necklace between the breasts. Upper right corner broken but traces of suspension-hole in the centre. It is decorated by small stars on the margin, which connects the plaque with those under Sub-type (ii) of Type 3.

The figure is similar to a terracotta illustrated by Gordon, which he assigns to sometime in the first century B.C.[3] and, like figures on the plaques of this Sub-type, is related to early stone sculptures.[4] The figurine comes from ACIII, level 47′, Stratum III*d*, which puts it about A.D. 350, a date apparently contradicted by its style. It is to be regarded as intrusive in the stratum.

No. 8435, ACIII, KIX/P9h, -47′; St. III*d*: A.D. 350–450.

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[1] Gordon, op. cit., pl. XI, fig. 3.
[2] Cf. 'Mathurā Terracottas', fig. 33.
[3] 'Early Indian Terracottas', p. 156, pl. XIV, fig. 1.
Bachhofer, op. cit., pl. XXIX, top-left figure from Bharhut.

Nos. 40–45 are recorded below for their types rather than as furnishing evidence of dating, which is not forthcoming.

40. Figurine (1·7″) showing lower portion of female figure seated in profile to left with legs pendent and crossed. She is wearing a heavily-folded *dhoti*, covering both legs like trousers and secured at the waist. Gray-black colour. In material, style of drapery and pose, the figure is related to a single specimen from Mathurā, showing a woman at her toilet.[1] It seems to be an imported figure at Ahichchhatrā, depicting a foreign lady seated on a special kind of settee chair as in the Mathurā figure.

No. 1442, ACIII.

41. Woman standing (4·2″) heavily draped in a *dhoti* with sweeping folds. Hands placed on the girdle. By her side a female attendant holding a mirror. Stylistically the figure is related to a specimen from Mathurā showing a lady with a fan.[2] Brick-red colour.

No. 1373, ACIII, KX/A9a, -36′. The specimen seems to have been thrown to the surface in the course of filling.

42. Woman standing (4″), hands hanging by the side near the girdle which is indicated by a prominent ridge. Indistinct object in right hand. Double anklets.

No. 8743, ACIII, KIX/P10e, -53′; St. V: about A.D. 100.

43. Bust of a woman (3″) wearing a wreathed head-dress rendered by twisted rolls. The face is related to that of nos. 25 and 26, but the head-dress is simple and shows Hellenistic influence.

No. 6284, ACV, QVIII/P6g, -66′.

44. Woman (3·2″) standing, feeding a parrot with a fruit in her left hand and wearing a sleeved tunic and *dhoti*. The subject is familiar in the terracottas and sculptures of the Śuṅga and Kushāṇa periods. Although found in the Pit in ACV, the figure may be dated on stylistic basis to about the first century A.D.

No. 6187, ACV, QVIII/P5h, -70′ 6″.

45. Woman (2·5″) feeding a parrot perched on her left hand with a fruit held in her right hand. Same date as no. 44.

No. 6143, ACV, QVIII/P5j, -67′.

46. Fragmentary torso (2·2″) of woman in very low relief wearing a tunic, a girdle, and skirts with flounced edges.

No. 6417, ACIII, KX/A1g, -44′; St. III*c*: *c*. A.D. 350. Amongst associated finds was a copper coin of Achyu.

47. Female head (1·5″) with hair indicated by fine lines on the forehead and fringed by a double pearl-string, locks arranged in two loops, encircling the lateral masses now chipped off. The figure shows a high degree of sophistication and is related to another figure from Mathurā published by Gordon.[3] There is a second figure in the Mathurā Museum and the group seems to be limited to three or four specimens, so far as is known. The specimen from Ahichchhatrā comes from -70′ level in the Pit in ACV (QVIII/P5h). Unfortunately, figures from this Pit cannot be dated so firmly as those from ACIII site. The head may be assigned to any date between the first century B.C. and the first century A.D. There is a hole in the bottom of the neck showing that it was fixed to a tenon on the bust.

No. 6208, ACV, QVIII/P5h, -70′.

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[1] 'Mathurā Terracottas', fig. 34.
[2] 'Mathurā Terracottas', fig. 31.
[3] 'Early Indian Terracottas', p. 164, pl. XIII, fig. 3.

TYPE 5. ALLIED MALE FIGURES

Sub-type (i). Allied to the Mithuna Sub-type

48. Male figure (5·7″) holding a lute in suspended left hand. The head has a protuberant turban. Head-dress, rich drapery, ornaments and pose similar to those of the male figure in the Mithuna type of the early class (cf. nos. 12 and 14). Elaborate scarf with minute folds arranged on right shoulder, across the chest and in a loop on left shoulder. Distinct marks of stippling on the bust and neck indicate gauze-like (*jālikā*) garment. Red colour. Both red and gray terracottas were produced from the same moulds.

Found in ACV, Pit, -72′. On the analogy of no. 11 from ACIII, this may be dated to the period 200–100 B.C., probably nearer the earlier limit.

Nos. 6298 and 6524, ACV, QVIII/P5j, -72′.

49. Nude boy (2·7″), wearing a necklace of two taurine-shaped beads and another pendent necklace on the chest. Holds an indistinct round object in right hand; left arm is akimbo. A richly decorated scarf similar to nos. 12, 13 and 46 covers shoulders and arms with ends falling on the side of the legs. Triple-beaded girdle. This was a special type connected with the male type of no. 47. Gray-black colour. Head and feet missing.

No. 6160; ACV, QVIII/P5h, -71′.

(*a*) Torso of nude boy (3·5″), similar to above, but larger. Red colour.

No. 6102, ACV, QVIII/P5g, -65′ 6″.

Sub-type (ii). Miscellaneous male figures

50. Standing figure of an ascetic (3″) with a short beard, and hair tied in a topknot on head; wears a short *valkala* dress falling to the knees; holds with both hands a basket of flowers (*pushpa-chaṅgerikā*). The type is closely related to the young ascetic figures at Sānchī.[1]

No. 6171, ACV, QVIII/P9k, -63′.

51. Male figurine (2·5″) modelled by hand. Originally three-legged, the third leg at the back serving as a kind of hind-support. Traces of appliqué girdle passing round the loins with a double strip of cloth passing under the pelvic region. The head was probably moulded; arms and legs are missing. The type appears as a male counterpart to the three-legged female figure from Mathurā.[2]

No. 6596, ACV, QVIII/P5h, -73′.

52. Child's head with smiling face (1·7″). Hair shown in two side-masses near the forehead.

No. 6527, ACV, QIX/Q4c, -46′. Its smile reminds one of the smiling boy's head from Bulandī-bāgh near Patna, and the figure seems to belong to the best period of Śuṅga terracotta art. It seems to have been foreign to its present level.

GROUP III. DWARFS

TYPE 6. DWARFS AND GROTESQUES

The predominant type under this class is that of a nude dwarf or *vāmanaka*, comprising about one hundred specimens. The general type is of a nude bow-legged dwarfish figure standing with legs apart, feet joined, and the frame of the lower extremities taking roughly the form of a rhomb. The position of the hands determines the following two Sub-types:

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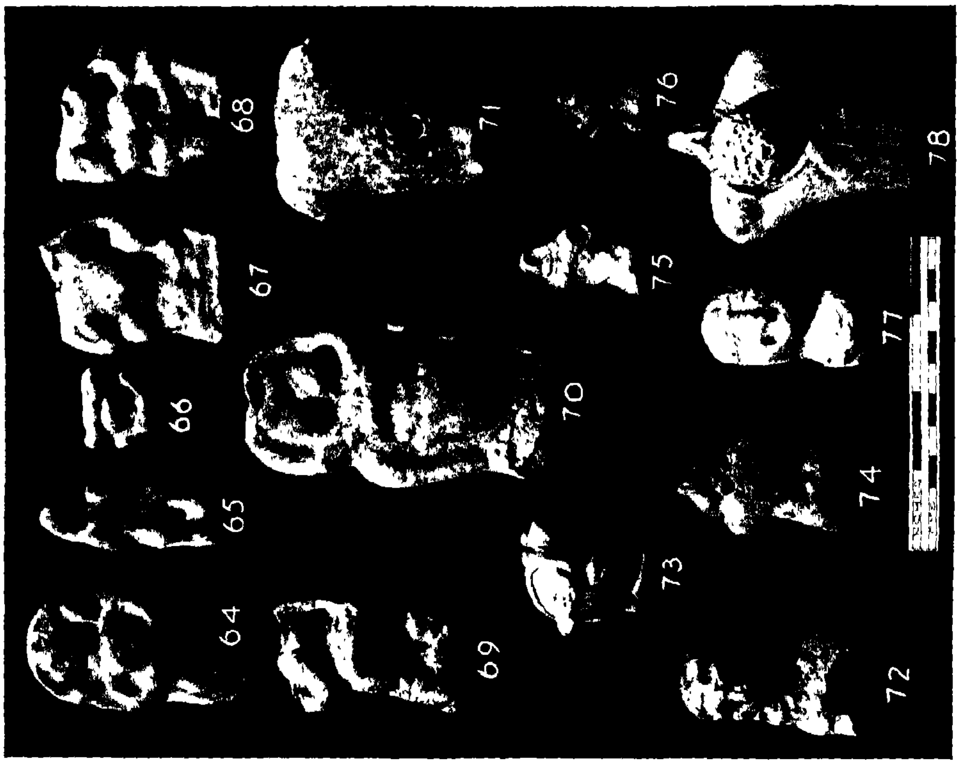
[1] Bachhofer, op. cit., pl. 59*b*.
[2] 'Mathurā Terracottas', p. 19, fig. 14.

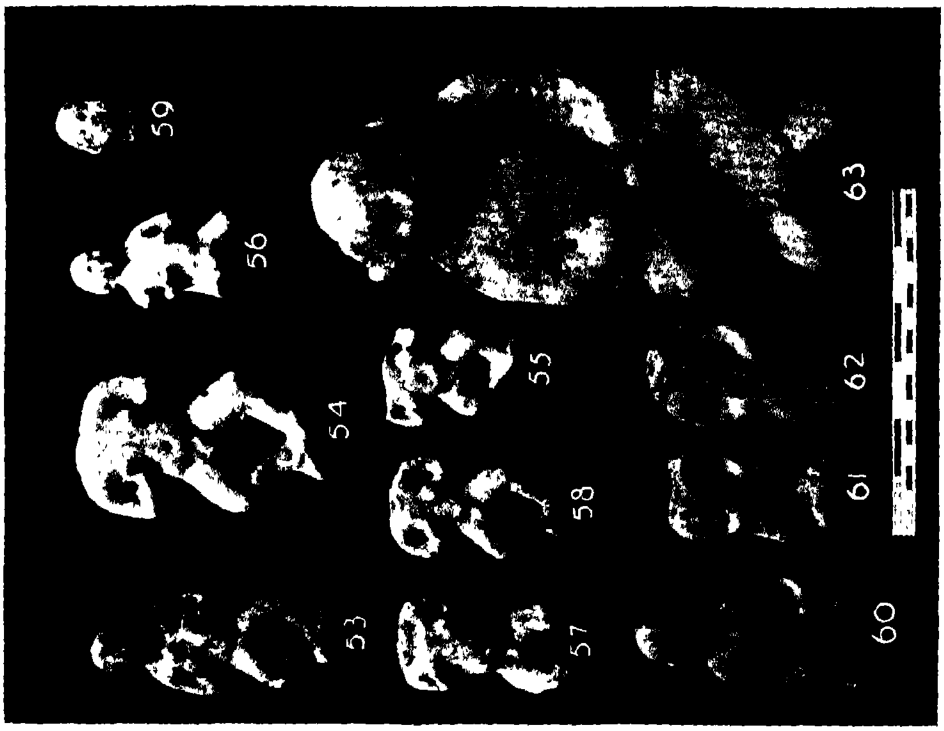


A. *40–46, Type 4, Sub-type (ii), miscellaneous female figures; 51, Type 5, Sub-type (ii), male figure*



B. *47, Type 4, Sub-type (ii), female head; 48-49, Type 5, Sub-type (i), male figures allied to Mithuna Sub-type; 50, 52, Type 5, Sub-type (ii), miscellaneous male figures*





Type 6, dwarfs and grotesques

(i) hands placed on the upper part of the abdomen near the breast, and (ii) hands placed below the abdomen on the hip-joints.

In both cases the fingers of the hands are always fisted, and the shaven heads have a pointed skull and short projecting ears which in two cases have holes bored in the lobes (nos. 56 and 60). In regard to technique, we notice the following distinctions:—

Sub-type (i), hands on breast. (*a*) Use of double moulds on a solid core of clay. The back and front moulds were pressed simultaneously and then removed, after which the spare clay was peeled off, leaving a mark along the joint. The modeller then retouched the figure and freed the arms and legs from the body. (*b*) Round holes pierced between the flexed elbow and the armpit. (*c*) Spare clay between the legs removed with an edged tool to leave a rhomboid space. In some cases a round hole pierces the space between the legs, larger than that under the armpits.

Sub-type (ii), arms akimbo. (*a*) Use of double moulds in the case of figurines of finer finish and small size; (*b*) use of single moulds for specimens of cruder execution and bigger size (the biggest being 9·2″ high, no. 63); (*c*) the facial type in the bigger specimens indicates foreign features with a flat face and pointed chin (cf. no. 63*g*); (*d*) the free space under the armpits is elongated when double moulds were used, but it is in the form of small circular holes when single moulds were used; and (*e*) the spare clay between the legs has not been removed except in one or two cases (cf. no. 63).

A special class under Sub-type (i) is that of miniature figurines produced by pressing a roll of clay inside a single mould. In this case only a small hole between the legs was bored optionally, three figures showing it and three others being solid (cf. nos. 65 and 65*a*).

There are two specimens with arms akimbo produced from double moulds but without holes either under the arms or between the legs.

The evidence for dating supplied by finds from ACIII shows that the type prevailed throughout Stratum IV (A.D. 100–350) but was especially popular in Sub-stratum IV*c*, between A.D. 100 and 200, which seems to have been the time of its first introduction. It was thus a characteristic type of the Kushāṇa period, and many specimens known from Mathurā can now be assigned to their proper chronological context.

Sub-type (i). Hands on breast

53. Nude standing dwarf, *vāmanaka*, (4·4″) bow-legged, legs separated by removing the spare clay, but feet joined. Arms bent at elbow and hands with closed fists are placed on the upper side of a paunchy abdomen; two circular holes pierced under the armpits; bald head with skull pointed at the back. Produced by pressing two moulds on to a solid core of clay; marks of joining and paring spare clay at the sides. The holes near the elbow were pierced by a sharp-pointed round stick as the opening on the front side is mostly bigger than that at the other end. This is also shown by the clay at the lower end being drawn out a little and not flush with the surface of the back. The same instrument seems to have been used for removing the clay from between the legs. This and other specimens of the group show a coating of yellowish clay with patches of red paint.[1]

No. 8536, ACIII, KIX/P10c, –49½′.

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[1] The Archaeological Chemist in India reports: 'The examination of the yellow coating shows that the colouring material is hydrated ferric oxide. This yellow oxide is converted into red ferric oxide on heating. It does not contain lime or gypsum, but includes an appreciable proportion of sandy and clayey matter. The yellow coating can be described as yellow ochre or *Multāni maṭṭi*. The quantity of the red paint was too small to be subjected to thorough analysis, but spot tests show that it contains ferric oxide. Lead and mercury are absent. This ferric oxide can be regarded as haematite or *geru*.'

54. Nude dwarf (4·5″) similar to no. 53; headless; rhomboid free space between legs. The holes under the armpit are straight and equal at both ends.

No. 8527, ACIII, KIX/P4e, -50′; Stratum IV*c*: A.D. 100–200.

55. Nude dwarf as above. Aperture between bandy legs circular. Although with flexed arms, the specimen is unique in having been produced from a deep single mould.

No. 8656, ACIII, KX/Lle, -52′; St. IV*c*.

(*a*) No. 8969 (2·7″), ACIII, KIX/P9c, -51′; St. IV*c*.
(*b*) No. 6899 (2·2″), ACIII, KIX/K6k, -46′; St. III*c*: A.D. 450–550.
(*c*) No. 6454, ACIII, KIX/K10g, -45½′; St. III*b*: A.D. 550–650.

56. Nude dwarf (3″) having ears with bored lobes.

No. 10921, ACIII, KX/Flj, -47′ 6″; St. III*d*: A.D. 350–450.

57. Nude dwarf (3″) with hands on chest above paunchy abdomen. No holes under armpits.

No. 11509, ACI, Locus 85, -50′.

58. Nude dwarf (3·2″) as above, with slim normal body.

No. 11509/3, ACI, Locus 85, -50′.

(*a*) Nude dwarf (2·6″), back half portion only, showing that each half was produced from its mould separately and then joined together.

No. 11541, ACI, Locus 85, -51′.

(*b*) Torso of a nude dwarf (2·6″) showing the front and back halves with hollow space inside the bust.

No. 11537, ACI, Locus 85, -51′.

59. Head (1·5″) of a dwarf.

No. 11509/5—more than a dozen specimens were found in Locus 85 on temple-site ACI.

There are other specimens of this Sub-type from ACIII, ACVII and ACXV not recorded here.

Sub-type (ii). Arms akimbo

60. Nude dwarf (4″) with arms akimbo and fisted hands, skull pointed at the back; ears bored with holes. An elongated space separates arms from bust. Produced from a double mould.

No. 11177, ACXV, QVII/Ylf, -51′ 6″.

(*a*) Nude dwarf (3·8″) with arms akimbo, produced from a double mould, the back mould inadequately pressed.

No. 6997, ACIII, KIX/P10c, -46′.

61. Nude dwarf (3″) with arms akimbo and bandy legs. Coarse micaceous clay; produced from a single mould. Small circular holes between arms and legs, an unusual feature for this Sub-type.

No. 8615, ACIII, KIX/P10c, -52′; St. IV*c*: A.D. 100–200.

(*a*) Nude dwarf. No. 10023, ACI, Room 6, -45′.
(*b*) Nude dwarf. No. 11540, ACI, Room 85, -51′.
(*c*) Nude dwarf. No. 10124, ACI, Room 118, -49′.
(*d*) Nude dwarf with thick bandy legs, pressed from two moulds, the upper and lower ones roughly coinciding. No. 9382, ACVII, GV/D10a, -41′.

62. Nude dwarf (3·4″) as above but the clay between the arms and the legs remains uncut, the whole body being in the form of a slab.

No. 6784, ACIII, KX/F9e, –42½′.

(*a*) Nude dwarf (2·5″) similar to no. 62, with solid slab-like body. No. 10811, ACIII, KX/F1c, –49′; St. IV*b*: A.D. 200–300.

63. Nude dwarf (9·2″) with arms akimbo. Produced from a single flat mould; crude workmanship. Impression of potter's full hand on the back. Two very small and unaligned holes at the flexed elbows, showing that the real purpose of this device had been forgotten. Face flat and triangular having affinity with the Seleucian specimen no. 365.[1]

No. 4030, ACIII, KIX/U10h, –45′.

Nos. 62-63 represent a variety of Sub-type (ii) (arms akimbo), consisting of about a dozen specimens, all save one being from ACIII and sharing the common features of minute holes under armpits, impressions of hand on the back, and use of a single rough mould.

(*a*) Dwarf, head missing.

No. 4480, ACIII, KIX/E4j, –41′; St. II: A.D. 750–850.

(*b*) Dwarf (2·9″), head and bust only.

No. 6453, ACIII, KIX/K7g, –45½′; St. III*a*: A.D. 650–750.

(*c*) Fragmentary torso of dwarf (3·4″).

No. 6777, ACIII, KIX/K4a, –43′; St. II.

(*d*) Dwarf (5″), portion above chest missing. Small holes in the angles of flexed elbow, clay between the crutch left uncut.

No. 6938, ACIII, KIX/P6k, –44½′, St. III*a*.

(*e*) Head of a dwarf (3″), thin tongue-relief framing outline of the head.

No. 6895, KIX/P6f, –46′; St. III*b*: A.D. 550–650.

(*f*) Head of dwarf, framed as above. Flat triangular head with pointed chin. Three deep marks of fingers at the back.

No. 8735, ACIII, KIX/E5j, –46′; St. III*d*: A.D. 350–450.

(*g*) Head as above (3″), fisted hands placed much above the breast near the neck.

No. 8972, ACIII, KIX/E10j, –47′.

(*h*) Dwarf as above (6·2″).

No. 10901, ACIII, KIX/P4h, –49′.

(*i*) Head of dwarf (2·6″) with fisted hands similar to (*g*) above. Both these specimens are varieties of the Sub-type with hands on chest, but are produced from single moulds in crude style.

No. 10229, ACIV, MIX/S5e, –45′.

(*j*) Head of dwarf (1·9″).

No. 3865, ACIII, KX/F8d, –48½′; St. IV*a*: A.D. 300–350.

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1 Wilhelmina van Ingen, *Figurines from Seleucia on the Tigris* (Univ. of Michigan, 1932), pl. XXV, fig. 176.

The stratigraphical evidence furnished by the above group of crude specimens made with single moulds shows that it was later in time than that produced from double moulds, and seems to have made its appearance about the fifth-sixth century A. D.

64. Nude dwarf produced as a plaque from a single mould (2·9").

Pricked ears and a tuft on the head, two spearhead-like objects rising from the shoulders; hands placed on the hips. A later development of Sub-type (ii) assignable to about the seventh century A. D.

No. 9312, ACVII, HV/H9b, -42′.

Sub-type (iii). Miniature dwarfs

Under this Sub-type comes a group of six figurines representing dwarfs in miniature size, all with hands on breasts and produced by pressing a roll of clay into a single mould. The tiny hole between the bow-legs is found in some and is absent in others.

65. Miniature dwarf (2·2").

No. 6976, ACIII, KIX/P7a, -46′; St. III*c*: A.D. 550–650.

(*a*) Miniature dwarf (2·1") as no. 65, minute pin-hole in crutch.
No. 8623, ACIII, KIX/K10g, -48′; St. IV*b*: A.D. 200–300.

(*b*) Miniature dwarf (1·6") as no. 65 but produced from a double mould.
No. 6975, ACIII, KIX/P7a, -46′; St. III*c*.

(*c*) Miniature dwarf shaped like a crude roll of clay, made from a single mould without much detail.
No. 10078, ACI, Room 75, -26′.

(*d*) Bust of a miniature dwarf.
No. 10076, ACI, Room 78, -47′.

(*e*) Miniature dwarf (1·9") with hands on hips and dwarfish legs in squatting posture. Details indistinct; but suggestion of a beard on the triangular face.
No. 6893, ACIII, KX/A10j, -46′; St. III*b* : A.D. 450–550.

Sub-type (iv). Seated dwarfs

66. Miniature headless dwarf (1"), squatting on buttocks with feet in front and hands joined together above flabby abdomen.

No. 8313, ACIII, KX/L2b, -49′.

67. Headless dwarf (2·5") squatting with pendent legs. Protruding navel on pot-belly; right hand on chest holding an indistinct round object, left hand resting on knee; base rectangular; pressed in a double mould, hollow inside.

No. 11169, ACXV, RVII/Y4f, -50½′.

68. Headless dwarfish figure (2·1") with flabby belly, squatting with legs hanging down. Right hand placed on knee holding a round fruit, probably citron (*bījapūraka*); left hand resting above left knee. Apron-like drapery passing over the knees. The figure shows affinities with Kubera iconography. From single mould with flat back, cut-out outline.

No. 4430, ACIII, KX/A2h, -42′; St. III*a*: A.D. 650–750.

(*a*) Bust of an obese figure (1·5") with a fruit in right hand; left hand with closed fingers resting on abdomen.
No. 4072, ACIII, KIX/P2a, -38′.

Sub-type (v). Female dwarfish figures

69. Nude female dwarfish figure (2·5″) seated in *bhadrāsana* with suspended legs. Right hand touching right breast, left holding a tray-like object placed in lap. Thick anklets. Round base. From double mould.

No. 8329, ACIII, KX/L1b, -49′; St. IV*b*: A.D. 200–300.

70. Female figure (3·5″) seated on a high seat with legs hanging down, hands touching each other and placed on the lid of a very prominent vase set between the legs, and suggesting that the figure may be Vasudhārā[1] the goddess of plenty, who is characterized by the presence of such vases. The figure is wearing a flat torque round the neck and sounds like a rattle, with loose bits inside the hollow body.

No. 10125, ACI, Room 115, -49′.

Sub-type (vi). Miscellaneous grotesque figures

71. Bust of a corpulent figure (2·5″). The arms, now missing, were made separately and fixed to holes in the shoulders pierced through from side to side. A hole bored through the abdomen to the back marks the navel.

No. 1449, ACIII, KX/F6d, -43′, St. III*a*: A.D. 650–750.

(*a*) Miniature corpulent figure (2·5″) with dwarfish extremities seated in profile, left hand on abdomen, right raised to the mouth. Produced from a single mould, the slab of clay at the back being ·6″ thick.

No. 10129, ACI, R. 115; -48′.

72. Male bust (2·5″) produced from two side-moulds joining along the central line of the nose. Head covered with frizzled hair. Arms forming part of the slab-like bust. Facial features awry.

No. 3697, ACIII, KX/F5b, -44′; St. III*a*.

73. Grotesque female head with eyebrows, eyes, short mouth, long ears and collar, all appliqué. Suspension-hole in crest.

No. 8052, ACIV, -45′ (ash-pit).

74. Crude hand-made figure (2·25″) of a dwarf or child resembling a starfish.

No. 6730, ACIII, KIX/E10g, -44′, St. III*c*: A.D. 450–550.

Such figurines were intended to represent children and have been found sometimes in enormous numbers assembled at one place. They were probably used as votive offerings.

75. Dwarfish figure (1·6″) with pinched nose and short stumpy arms, entirely hand-modelled. The lower body forms a cylinder on a round base. The hair is indicated by rows of pin-pricks on the head and nape. Two crossed lines incised on the back and continued in front indicate a *chhannavīra* ornament.

No. 6444, ACIII, KX/F2f, -45′; St. III*a*.

76. Grotesque figure with flattened cylindrical body, stumpy arms, and notched marks for eyes, ears and mouth. Pin-marks on the head to indicate hair; double groove-marks on arms, similar to no. 75 above.

No. 3852, ACIII, KX/F8b, -43′; St. III*a*.

77. Head with grinning mouth. Brick-like hardness. The type is known by two specimens only. The other is also from ACIII.

No. 3691, ACIII, -44′.

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[1] V. S. Agrawala, 'Goddess Vasudhārā,' *Journal of the Indian Society of Oriental Art*, VII (1939), 13–17.

78. Man in a kneeling posture, with head resting on hands in an attitude of adoration. A flying ribbon with two knotted ends is tied on the back.[1] The figure represents either an ordinary worshipper kneeling at a shrine or an attendant, Pratīhārī or Kañchukī, depicted while delivering a message to the king as bending down in a prostrate posture touching the ground with hands and knees.[2]

No. 8049, ACIV, MIX/S9a, -43′.

TYPE 7. DWARF MUSICIANS

This group of a dozen specimens of musicians and drummers, all hand-made and crude, represents a foreign type pointing towards Iran. The facial type is triangular with pointed chin, eyes diamond-shaped and incised or indicated by appliqué pellets, and head covered with a conical skull-cap or *kulah.* The hands are often undigitated, a convention due perhaps to long sleeves.

The problem of dating these figures is of some importance. All of them come from ACV, except one (no. 79) which was found in an undisturbed level in ACIII (KX/L2b) at a depth of 51′ 6″. This assigns it to Stratum IV*c*, i.e. A.D. 100–200. The type therefore belongs to the early Kushāṇa period. Votive tanks with identical figurines of musicians inside them (see Group IV, Type 8) support this dating (cf. votive tank no. 87 below, belonging to the same Stratum).

It is possible that during that age a class of Scythian or Parthian musicians playing the bagpipe and a short hand-drum was introduced into North India. The figurines in question show how the Indian modellers reacted to that foreign type through the handy medium of clay.

79. Male figure (2·5″) squatting. Pinched-up bridge of the nose; eyes indicated by small pellets fixed into sunken hollows; horizontally-pointing short ears. The head is covered by a high skull-cap ribbed with incised grooves. Four rows of notched coins mark a pair of collars worn round neck. Under the left armpit is held an object resembling a leathern bag which may be the puffed-up bag-pipe. Between the legs is a shallow bowl resting, like the figure itself, on a rough base-plate.

No. 8618, ACIII, KX/L2b, -51½′; St. IV*c*: A.D. 100–200.

80. Dwarfish figure (3·5″) in squatting posture, similar to no. 79, wearing a short but high skull-cap. Incised eyes, mouth indicated by a short incision-mark; pointed chin; applied collar with notches on it. Bagpipe under armpit as in no. 79.

No. 6660, ACV, QVIII/P2k, -61′.

81. Male figure (3″), squatting with suspended legs. A musical instrument with round back is held in the flexed left arm, and the right hand is shown plucking its strings with a long plectrum. Flat base-plate below.

No. 9229, ACVII, HV/C9e.

82. Squatting male figure holding a small receding drum under the left armpit, the base of the drum being smaller than the top. The instrument resembles a *tablā*, it was perhaps the instrument referred to in literature as *kāhala*, which is explained as a big *ḍhakkā*. High skull-cap sloping backwards, incised sunken eyes, nose and forehead in one line, long pointed chin suggestive of a beard, and applied collar round the neck. Portion below waist missing.

No. 6647, ACV, QVIII/P2k, -69′.

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[1] This feature is significantly referred to in the *Harshacharita* as *prishṭha-preṅkhat-paṭachchara-karpaṭa-ghaṭita-galita-granthiḥ*, 'the knot fastened up by a ragged clout swinging behind him was hanging loose'. (*Harsha-charita*, text, Nirnayasāgar Press, 5th edition (1925), p. 52; Cowell and Thomas, translation, p. 41.)

[2] Bāṇa designates this pose as *kshititala-nihita-karatala* (ibid., p. 214), and as *prithvī-pratishṭhāpita-pāṇi-pallava* attitude (*Kādambarī*, text, ed. P. L. Vaidya, p. 18).

83. Squatting figure (3·2″) similar to above, wearing a round-topped cylindrical cap with upright incised lines. Projecting cone-like ears with pin-head marks; applied round eyes with pupils, short slit indicating the mouth; and a collar marked by punches. Surplus clay on the back either indicating a mantle or physical deformity. A short drum under the armpit as in no. 82.

No. 6668, ACV, QVIII/P3j, -63′.

(*a*) Hump-backed musician (2·8″) similar to above, playing with extended right hand on a small drum in left flexed arm.

No. 6649, ACV, QVIII/P2k, -61′.

84. Crude human figurine (2 5″) beating a drum held parallel to the chest. Coarse clay with profuse mixture of rice-husk.

No. 6107, ACV, QVIII/P6j, -65′.

85. Drummer as above (2″).

No. 10126, ACI, R. 115, -49′.

86. Grotesque figure (3·1″) with a crude monkey-like face; arms flexed towards the chest, undigitated hands in an attitude indicative of clapping (*pāṇivāda-mudrā*).

No. 6650, ACV, QVIII/P2k, -61′.

GROUP IV

TYPE 8. VOTIVE TANKS

Several specimens of votive tanks have been found at Ahichchhatrā, mostly on site ACIII. They consist of a wall-enclosure with lamps and birds on the rim and dwarf musicians, similar to Type 7, squatting inside against the walls, with shallow cups placed in front of them. The time of their first introduction, as indicated by specimens from ACIII, appears to be about A.D. 100–200.

The votive tanks or model shrines, as they may be called, suggest Parthian or Indo-Parthian analogues. Similar model shrines have been discovered in the Scytho-Parthian city at Sirkap (Taxila). In an excellent specimen[1] the shrine consists of a walled enclosure with lamps at the four corners, birds perched on the walls and a figurine of the Mother Goddess installed under the shrine in the enclosure. This last feature provides definite evidence of their association with the cult of the great Mother Goddess, whose worship in some Iranian form was introduced by the Hellenized Parthians into Gandhāra and which from there spread to various centres in North India. The four tanks at Sirkap were found actually *in situ* in the place where they were dedicated by the side of a Buddhist stūpa.[2] It is said that miniature tanks of a somewhat similar kind under the name of *Yama-pukur* are still dedicated by maidens in Bengal to Yama, the god of death, and there can be little doubt that their use in India has been current from a very early age.[3]

The drummers found inside these votive tanks further strengthen their association with the culture of the Parthians. According to Mrs. van Ingen, the drummer type was specially popular at Seleucia during the period of the Parthians, who are credited with its introduction at that time.[4] Levels I and II at Seleucia, which are Parthian, range in

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[1] 'Explorations at Sirkap', *Archaeological Survey Annual Report*, 1924-25, p. 50, pl. 13, fig. 3. See also D. H. Gordon, 'The Mother Goddess of Gandhāra', *Antiquity*, March, 1937, pp. 74–6 and fig. 2.

[2] *Archaeological Survey Annual Report*, 1924-25, p. 50, pl. 13, fig. 2.

[3] Ibid., p. 50.

[4] Van Ingen, op. cit., p. 26.

date from A.D. 70 to 200, which coincides with the period of Scytho-Parthian influence in Indian history. A votive tank (no. 6673) showing a typical drummer inside it was discovered, along with ten similar Parthian-type drummers, in the same 10-foot square (QVIII/P2k,—60') on site ACV. This may possibly be due to a temporary settlement of some Parthian colony in the old city-area to the east of the partition-wall.

87. Votive tank (5·5"×4·25") consisting of a walled enclosure with an opening in the front wall. In the centre are three shallow bowls in a line. In the right corner of the front wall is an indistinct miniature figurine, and squatting against the back wall are two musicians, exactly similar to those described under Type 7. The first figure is wearing a notched collar and playing two cymbals, and the second one is wearing a scarf across the chest and is beating a drum held under left armpit. The figures as well as the tank are modelled by hand.

No. 8366, ACIII, KIX/P10d, -51'; St. IVc: A.D. 100–200.

(*a*) Fragment of a votive tank with a bird.
No. 3897, ACIII, KX/F8k, -43'.

(*b*) Fragment of a votive tank.
No. 3898, ACIII, KX/F4a, -44'.

(*c*) Fragment of a votive tank.
No. 1323, ACIII, KX/F5f, -41'.

(*d*) Fragment of a votive tank showing on the rim a bird before a bowl.
No. 6979, ACIII, KIX/K8h, -47'.

(*e*) Votive tank with a bird perched on the rim.
No. 8028, ACIV, MIX/S10e, -43'.

(*f*) Fragment of votive tank similar to above.
No. 8357, ACIII, Locus 403, -49'.

88. Votive tank (7·25"×4·25"×1·7") showing a walled enclosure with lamps at the four corners and a fifth lamp on the front wall. Inside the enclosure are three shallow bowls placed in a line. A drummer seated against the left wall is beating with his right arm a round drum held under the armpit. The figure has a triangular face, pointed chin, incised lozenge-eyes and short skull-cap, all proclaiming his foreign identity. Two more figures seated against the back wall are now seen in traces only. A cut aperture in the front wall marks the gate.

No. 6673, ACV, QVIII/P2k, -60'.

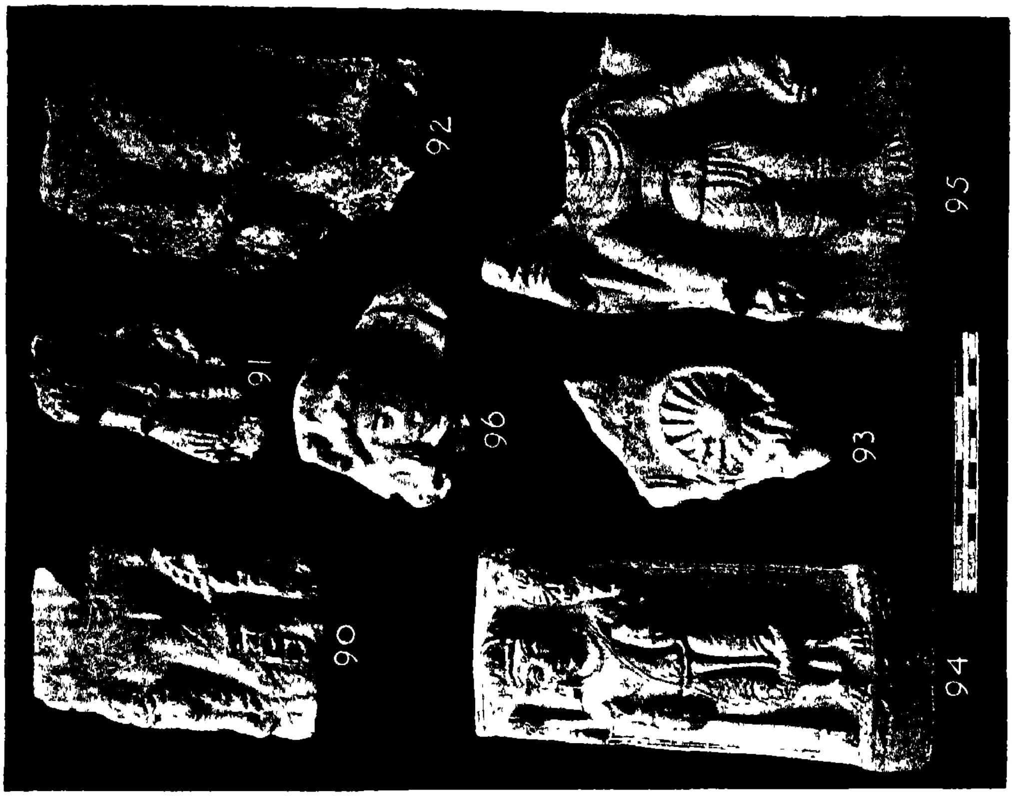
89. Votive tank in fragmentary condition showing four musicians, three of whom are drummers squatting against the back wall with bowls in front of them.

No. 3051, ACV, QVIII/P2h, -57'.

GROUP V. GODS AND GODDESSES

Images of Vishṇu, Sūrya, Gaṇeśa and Mahishāsuramardinī are found amongst the Ahichchhatrā terracottas. In ACIII they range from Stratum III to Stratum I, i.e. from the Gupta to the medieval period. They throw light on the dating of figures in allied styles found elsewhere. Noteworthy features of iconographic or other interest are pointed out in their proper places.

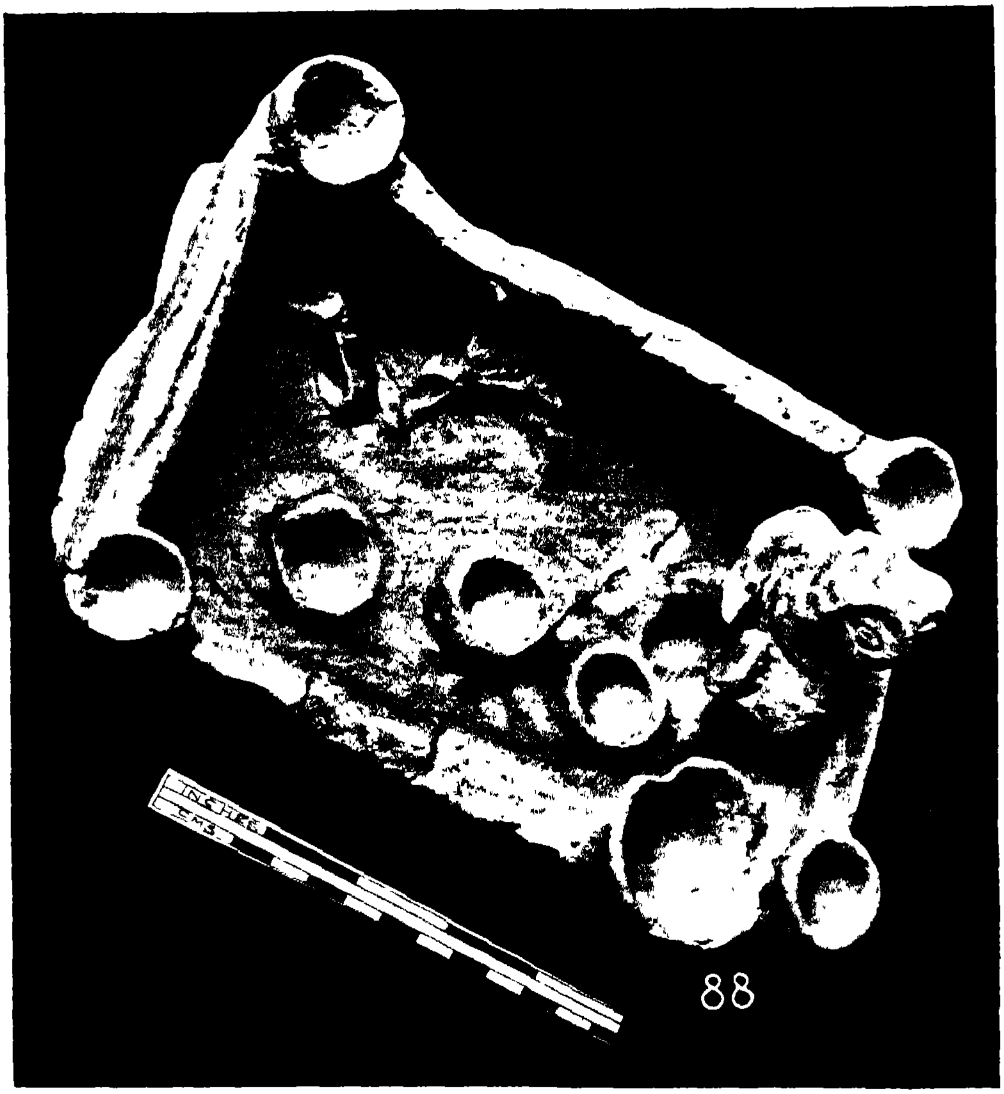
PLATE XXXVII



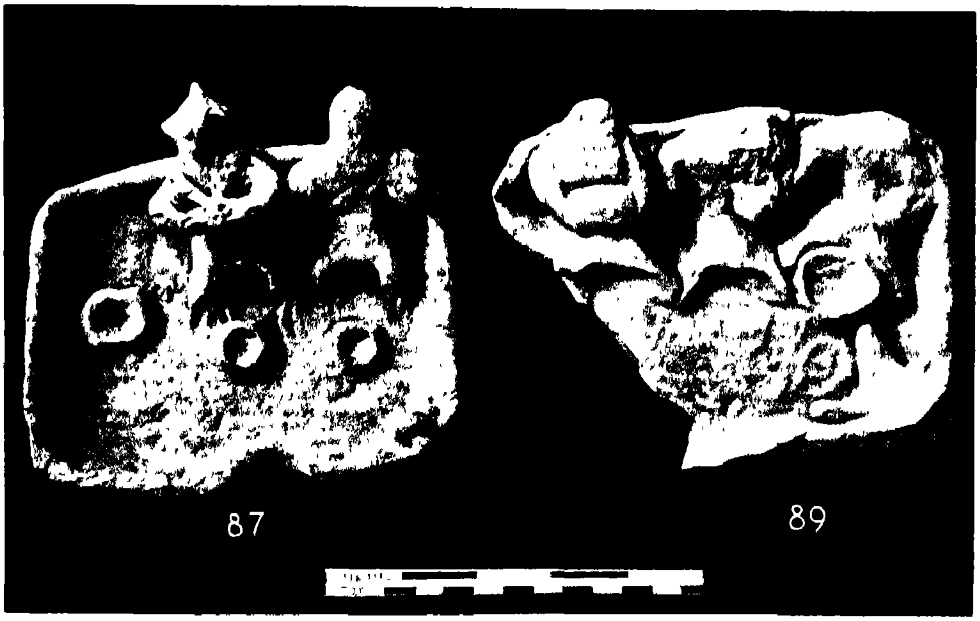
B. *Type 9, figures of Vishṇu*



A. *Type 7, dwarf musicians*



Type 8, votive tank



Type 8, votive tanks

PLATE XL



B. *Type 11, figure of Agni.* (Height 15½ inches.)



A. *Type 10, figures of Sūrya*

Type 9. Vishṇu

90. Torso of a male figure (4·5") wearing the *vanamālā* garland, looped round the arms and thighs, with marks of indentation along its length; short necklaces round the neck; and armlets on the upper arms in the characteristic Kushāṇa style of a framed peacock-head (*māyūra-keyūra*) (fig. 1, 3) referred to by Aśvaghosha [1] an incised line drawn diagonally from left shoulder to right side marks the sacred thread. The extra arms bifurcate from the elbows. No attributes are now preserved.

No. 8116, ACIII, KIX/E7e, –48′; St. IV*a*. May be assigned to the end of the Kushāṇa period, about A.D. 300.

(*a*) Fragment showing the oval *chakra* (3·6") of a Vishṇu image held aloft in the left hand, with doubled fingers inserted between the spokes.

No. 8173, ACIII, KIX/E7j, –45′: St. III*b*: A.D. 550–650.

(*b*) Fragmentary oval *chakra* (2·6"), as above, with an outer fringe of decorative scroll-work.

No. 8347, ACIII, KIX/P7c (Room 420), –50′; St. IV*b*: A.D. 200–300. Its depth requires to be explained, as stylistically it should be placed in the Gupta period.

(*c*) Fragmentary wheel (4·6") of a Vishṇu showing the god's hand inserted at the axis-hole.

No. 6494, ACIII, KX/F2c, –46"; St. III*b*.

91. Fragment of Vishṇu image (3·6"), showing the two right arms, the upper hand holding a round object and the lower one touching the top of a mace. The garland consists of *champaka* flowers, showing a central knot formed by two rosettes. A studded wristlet round the lower hand. The fragment belongs to an extremely graceful figure.

No. 3752, ACIII, KX/F8c, –44′. Found below a rammed road of St. III*a*: A.D. 650–750.

92. Fragment (5") of a Vishṇu statuette wearing the *vanamālā*, short loin-cloth with pointed end falling between knees. Traces of mace on the figure's left side now lost. Profuse mixture of rice-husk in coarse clay.

No. 1464, ACIII, KX/F6d, –43′ 6"; St. III*a*.

93. Fragment of a round plaque (4·25") showing a *chakra* held aloft in Vishṇu's left hand with doubled fingers inserted between the spokes. The wheel tends to approximate more to the circular form than the elliptical disc described above. The roundness of the plaque also suggests stylistic relationship with similar plaques of Sūrya, described below (no. 98, etc.). The clay shows a profuse mixture of rice husk. After completion the figure was pressed on a layer of husk which has left its marks in the clay on the back.

No. 4435, ACIII, KIX/E8d, –41′; St. II: A.D. 750–850.

94. Four-armed Vishṇu (7") standing on a projecting base. Holds conch and wheel in the upper and lower left hands, upper right hand placed on the thin tapering end of a full-length mace resting near the leg on its butt end; crown on head adorned with three-arched pattern; *ūrṇā* dot between the eyebrows; single pearl-necklace; sacred thread incised across chest; loop of the heavy garland encircling the knees and appearing above the left shoulder; a short *dhoti* covers the loins, leaving the knee-caps bare, but with a central fold falling to the ankles. Plaque rectangular in form with a border of double incised lines.

No. 8029, ACIV, MIX/S9a, –43′.

(*a*) Fragment of a Vishṇu figure (4"). Lower left hand placed on the top of a short mace. Appliqué flower-garland looped round the thighs.

No. 8030, ACIV, MIX/S9a, –43′.

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[1] Cf. this style of armlet on a Mathurā Bodhisattva of Kushāṇa period, J. Ph. Vogel, *Catalogue of the Archaeological Museum at Mathurā* (Allahabad, 1910), p. 58, A. 45 and pl. X. Also *Saundarananda*, X, 8.

95. Four-armed Vishṇu (6·5″) holding mace in upper and conch in lower left hand. Drapery and ornaments indicated by grooved lines cast from a mould. Marks of pared tongue-relief on the back left edge.

No. 1425, ACIII, KIX/E3d, –37′; St. I: A.D. 850–1100.

96. Haloed head (2·5″) of a divine figure, probably Vishṇu, wearing a cylindrical crown with a double rim. Hair falling in spiral locks.

No. 6712, ACIII, KIX/K10e, –46′; St. III*b*.

(*a*) Haloed head, probably of Vishṇu, with a crown on the head consisting of three-arched pattern above a roll of turban. Coarse clay with rice-husk, burnt to brick-like hardness.

No. 4033, ACIII, KIX.

Type 10. Sūrya

Sūrya, the Sun-god, is represented by thirteen fragmentary plaques, eleven from ACIII and two from ACVII. All the ACIII specimens are from Stratum III, Sub-strata *a*, *b* and *c*, proving that the iconographical form furnished by these rounded plaques prevailed between A.D. 450 and 750. A detailed study of the plaques reveals the following special features:—

(i) The plaques are circular with the upper half occupied by the deity and the lower half by an array of seven horses. Several specimens of similar large circular stone images have been found in the Mathurā school of sculpture which it should now be possible to assign to the period of these plaques.

(ii) The seven horses are shown standing erect on their hind legs, the one in the centre treated frontally, and the three on each side shown in three-quarters profile. In no. 98(*b*), horses' trappings include side straps (*kakshyā-bandha*), girth-band, head flywhisks and a rope round neck (*avarakshaṇī, bandhana-rajjū, Harshacharita*, p. 205).

(iii) The Sun-god and his attendants stand on a chariot. Its single wheel is shown between the hind legs of the middle horse. Above the horses' heads is a raised platform covered with a flowery mattress serving as the seat of the deity. Cf. no. 98(*b*).

(iv) An attendant human figure, holding a lasso or a long rope with slip-knot (*kamand*), a part of the equipment of the Sāsānian soldier, is shown on the plaque. Cf. nos. 97 and 98(*b*).

(v) The Sun-god wears Northern dress (*udīchya-vesha*) consisting of a buttoned sleeved coat, trousers and padded boots. The costume of the figure in no. 102 is especially noteworthy, being studded all over with streaks of pearls, each streak consisting of four pearls. This was a special variety of costly clothing-material known as *stavaraka*.[1]

(vi) In front of the Sun-god is a smaller figure of his charioteer Aruṇa. Cf. nos. 98(*b*) and 102.

(vii) On the right and left of the Sun-god stands a female figure holding a bow stretched in the attitude of shooting, apparently representing the twin goddesses Ushā and Pratyushā (or Rājñī and Nikshubhā, according to the *Vishṇudharmottara Purāṇa*), discharging arrows of light to dispel darkness. Cf. nos. 98, 98(*a*), 99 and 100. The female figure on no. 98 is wearing a high conical cap and a long cloak continued down to the ankles, apparently Iranian female dress.

(viii) A little below the goddesses appear two attendant Nāga figures, one on each side of the horses. It is said that the Nāgas as sons of Kadrū, the goddess of darkness, enveloped the solar horses until they were chased away by Garuḍa.

Thus a full-fledged iconographic formula of the Sun-god is presented in the terracotta plaques from Ahichchhatrā. The solar image in the Kushāṇa period represents Sūrya

[1] See Appendix (p. 178).

clad in the same style but seated on a chariot of two or four horses, and without either the twin goddesses or the Nāga attendants and the lasso-bearer. An important feature in these plaques is the absence of two acolytes, Daṇḍa and Piṅgala, who should figure as attendants of Sūrya, dressed like him in coat and trousers. They already appear in Mathurā sculpture of the Gupta period,[1] and also in the marble Sūrya image of the fourth century A.D. from distant Khair Khaneh near Kābul,[2] Afghanistan. Their absence in the Ahichchhatrā plaques is inexplicable.

97. Fragment of a medallion with raised rim marked by incised lines, showing a human figure holding a lasso with a slip-knot. Head missing, and the lower part of the body concealed in a canoe-like projection. The main part of the medallion containing a detailed representation of the Sun-god is now lost. Base of preserved arch 5", diameter of original plaque 11", thickness of rim 1".

No. 8197, ACIII, KX/A4h, −46½′; St. III*c*: A.D. 450–550.

98. Fragment of a solar plaque showing a female figure shooting with a bow, apparently goddess Ushā driving away darkness. Beside her the hoods of a Nāga figure are preserved. Her long garment extending from the neck to the ankles is similar to the dress worn by a woman on a Mathurā railing pillar now in the Lucknow Museum,[3] both of which reveal Iranian affinities. Probably it is the same as the foot-length tunic (*āprapadīna kañchuka*) referred to by Bāṇabhaṭṭa.[4] Ht. 4·5", diameter of original plaque 9".

No. 3839, ACIII, KX/F3c, −46′; St. III*c*.

(*a*) Fragment of a round solar plaque, showing head and bust of a female figure in the act of drawing a bow. On her left traces of a bird which surmounted a standard. Ht. 2·5", original diameter 9".

No. 6787, ACIII, KX/A1h, −44′; St. III*b*: A.D. 550–650.

(*b*) Fragment of a round plaque of Sūrya. Seven horses standing erect in a row, with the leader in the centre and three on each side, just filling the lower half portion of the plaque. The single wheel is carved between the legs of the leader. Two male attendants, the right one better preserved, and each holding a rope, are looking towards the animals. The horses' trappings include side-straps and bosses on the girth and neck-strap. The upper half of the plaque marked off by a projecting ridge was occupied by the god and his attendants. A richly embroidered carpet with flower-patterns hangs in front. Only the left padded boot of the Sun-god occupying the centre is now preserved besides traces of the right foot. Between his feet a smaller figure in seated posture whose forearms are still visible, wearing a pearl-fringed garment represented his charioteer. On extreme left end is a Nāga head with seven hoods wearing the hair in wig-like style.

Plaque found in two fragments joined together. Almost the whole of the upper semi-circle with the figure of Sūrya and his attendants and also a portion of the lower one with horses' hoofs and part of wheel are missing. Dia. 9", ht. of the preserved portion 5".

No. 8112, ACIII, KX/A1j, −46′; St. III*c*.

99. Fragment of a round solar plaque showing the goddess Ushā in the attitude of shooting with a bow. On her left a standard surmounted by a couchant bull, with a fly-whisk hanging from the post. Ushā is wearing a single pearl-string (*ekāvalī*) round the neck and circular rings in the ears. She has an attractive coiffure arranged in two honey-comb masses. This is similar to the female figures under Type 17, with which it is also in chronological agreement. Ht. 2·5", diameter of original plaque 10".

No. 6499, ACIII, KIX/E10j, −43′; St. III*a*: A.D. 650–750.

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[1] V. S. Agrawala, 'Brahmanical Images in Mathurā', *Journal of the Indian Society of Oriental Art*, V (1937), p. 128, pl. XV, figs. 3, 4.

[2] J. Hackin, *Recherches Archéologiques au Col de Khair Khaneh prés de Kabul* (Paris, 1936), p. 15, pl. XIV.

[3] *A Short Guide-book to the Archaeological Section of the Provincial Museum, Lucknow* (1940), p. 11, Railing Pillar no. B. 84.

[4] *Harshacharita*, p. 31.

100. Fragment of a round solar plaque, showing the hand of the goddess Ushā holding a bow and, below it, the head of a Nāga figure, with a canopy of snake-hoods. Ht. 2·75", diameter of original plaque 9".

No. 8147, ACIII, KIX/E, –43′-44′; St. III*a*.

101. Fragment (2·5") of a solar image, showing parts of three standing horses, the wheel of the chariot marked between the legs of the leader.

No. 3766, ACIII, KX/F6a, –46′; St. III*c*.

102. Fragment (2·6") showing a headless bust of Sūrya holding a cluster of lotus flowers in the left arm and wearing a close-fitting sleeved tunic with a waist-band and a broad seamed strip for buttons in front. The tunic is made of a special fabric bedecked with streaks of pearls, each string consisting of four pearls, the first one bigger than the other three (fig. 1, 16). This design covers the tunic on the arms and on the bust both above and below the belt. The pearl-embroidered textile was specially manufactured in Iran during Sāsānian times, and was famous in foreign lands under the name of *istabraq*. In India it was known under the Sanskrit form *stavaraka*,[1] which was a direct borrowing from Pahlavi *istabrak*, a kind of silk brocade lavishly patterned with pearls.

In front of the solar figure is the head of another figure, apparently the charioteer Aruṇa.

No. 6739, ACIII, KX/A1j, –43′ 6″; St. III*a*.

(*a*) Fragment (3") of a round plaque, showing four horses of the Sun's chariot.

No. 6312, ACIII, KX/A2k, –43′; St. III*a*.

103. Fragment of a solar plaque (ht. 5·6", diameter of original plaque 12") showing three horses and a male attendant holding a rope near the rim.

No. 6313, ACIII, KX/A1j, –43′; St. III*a*.

104. Fragment of a solar plaque showing three standing horses with ropes tied round their necks, side-girths, and decorative bosses.

No. 9330, ACVII, HV/J1e, –46′.

105. Fragment of a solar plaque, showing the legs and boots of a squatting figure seated in chariot. Ht. 3·6", diameter of original plaque 10".

No. 9091, ACVII, GV/C9f, –37′ 6″.

(*a*) Fragment (2·25") showing portions of four horses with a wheel in the centre.

No. 4147, ACIII, KIX/E9f, –40′; St. I: A.D. 850–1100, but stylistically earlier.

106. Plaque showing a symbolical representation of the Sun-god. Sūrya is shown by a prominent orb placed against the rectangular frame of a chariot moving on one wheel. Standing inside are seven female figures with right hands in *abhayamudrā*, most probably the solar rays shown as 'the Seven Sisters'. The plaque is unique of its kind.

No. 11307, found fixed in a temple-wall at village Lachhmīpur near Ahichchhatrā.

TYPE 11. MISCELLANEOUS GODS AND GODDESSES

This group includes figures of miscellaneous deities such as Narasiṁha, Kubera, Kārttikeya, Nāga, Gaṇeśa, and Śiva and Pārvatī. They are from Strata III and II, corresponding to a period from about A.D. 350 to 850, during which time the Brahmanical deities were fashioned both in stone and clay. The figures are of value for the stylistic evidence they furnish in relation to their stratigraphical sequence.

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[1] *Harshacharita*, pp. 143, 207. See below, p. 178, Appendix.

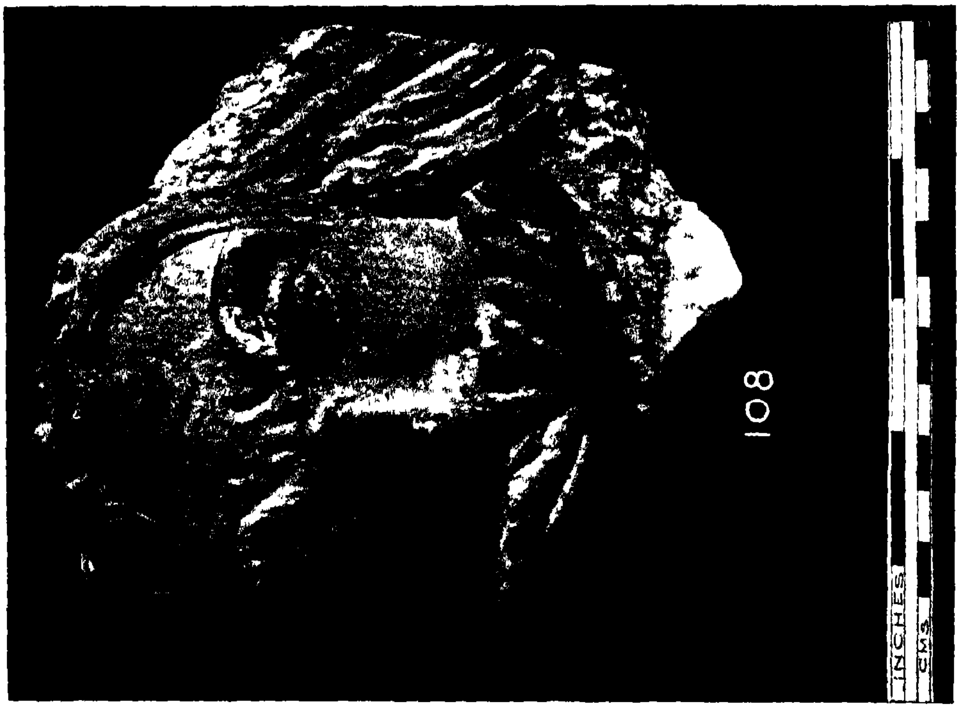
To face page 130

PLATE XLI

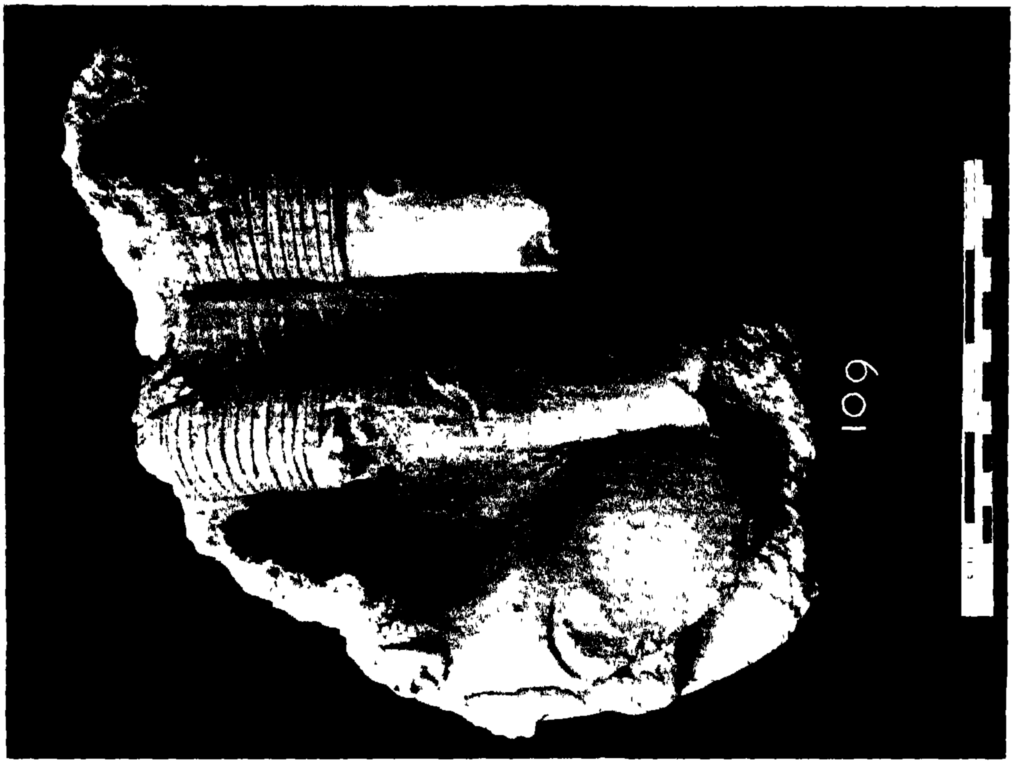


Type 10, solar plaque

To face page 131



A Type 11, *head of Nṛsiṃha*



B. Type 11, *figure of Kārttikeya*

Agni

107. Image of Agni, god of fire (1′ 3·5″), shown as a two-armed male figure, with a halo at the back of the head and an aura of flames (*prabhāvalī*) all round the body. Matted locks bound by a fillet, leaving a couple of loose locks falling on each shoulder (*aṁsāvalambinī jaṭā*). The figure is slightly pot-bellied, and wears a vertically striped loin-cloth (*jaṅghikā*) covering the thighs to a little above the knees. A twisted scarf terminating in a graceful loop is arranged diagonally in front from the left arm to the right armpit. This follows the style called *vaikakshyaka* garland in the works of Bāṇabhaṭṭa. Right arm raised to shoulder, left hand placed on thigh. Coarse micaceous clay with profuse mixture of husk. Back portion completely covered with a layer of paddy husk, which seems to have been a feature of the modeller's art in the sixth-seventh century.

No. 6959, ACIII, KX/A2j, −45′; St. III*b*: A.D. 550–650.

Nṛisiṁha

108. Head and bust (6·5″) of a man-lion (Nṛisiṁha) image having the face of a lion. The angry look is indicated by strained brows and tense muscles of the forehead, forming a puppet-like figure in the centre of the forehead referred to by Bāṇa as *ugra-putrikā*. The hair falling in loose strands on the sides shows a bee (*bhramara*) perched on the crest (fig. 1, 9). Beaded necklace round the neck. Right hand holds the stem of a lotus flower.

No. 6807, ACIII, KX/A2k, −43′; St. III*a*: A.D. 650–750.

Kubera

(*a*) Torso (5″) of Kubera, with a purse in the left hand and the right hand in *abhayamudrā*. Slightly pot-bellied, wears a flat torque, girdle, and scarf arranged across the legs.

No. 6302, ACIII, KIX/K4b, −42½′; St. III*a*: A.D. 650–750. Stylistically the figure appears to be of an earlier date.

Kārttikeya

109. Fragment of a Kārttikeya image riding on peacock with a bell tied round the bird's neck.

No. 9131, GVC/Ig, −38′ 5″.

Nāga

110. Nāga figure with a canopy of seven snake-hoods, wearing a crown on the head. Incised eyes with round pupils and slit mouth. Diagonal scarf indicated by an applied roll from the left shoulder to the right armpit. Heavy double chin, prominent nose and moustaches. An indistinct round object held in the raised right hand; left arm akimbo. Punched circlet marks on the back.

No. 10111, ACI, Room 1, −48′.

(*a*) Head of a Nāga figure with a radiating canopy of snake-hoods. Hair parted in the middle and then combed in horizontal locks on either side to hang in curls on the shoulders. The ends of the lips (*sṛikkāprānta*) and the centre of the lower lip are indicated by slight holes, a feature of the late Gupta style. Coarse clay with a mixture of rice-husk. The wet figure was laid on a layer of husk to finish off the hoods by modelling. A slip of sand and clay was applied before firing, leaving shining particles of mica all over the upper surface and sides.

No. 3727 (X), ACIII, KX/A5k, −43′; St. III*b*: floor of a Brahmanical temple.

(*b*) A Nāga figure (3·5″) with three serpent-hoods. Right hand in *abhayamudrā*. Defaced. Made of coarse clay mixed with rice-husk.

No. 8436, ACIII, KX/F4g, −43′; St. III*b*.

Gaṇeśa

Eight figures of Gaṇeśa were found, including three from ACIII, but none very clearly dated. Stylistically the three moulded figures should be assigned to Stratum III (A.D. 450–750). Amongst iconographic features, the figures show only the right tusk, a fruit in the right hand and a pot of sweets in left, to which the god is helping himself with the tip of his flexed trunk.

111. No. 8085, ACIV, MIX/S6j, –43′ 6″.

112. No. 9367, ACVII, GV/D7d, –44′.
(*a*) No. 3806, ACIII, KX/H2c, –43′.
(*b*) No. 8087, ACIV, MIX/H4h, –43½′.

Śiva and Pārvati

113. Head of Śiva with matted locks tied in a prominent and graceful topknot.

No. 10160, from the Śiva temple in ACI, R. 83, –26′.

114. Head of Pārvatī with the third eye and crescent mark on the forehead. Hair beautifully arranged in spiral *alaka*-locks, with braid fastened by a garland (*dhammila*) and adorned by a floral boss (*chandraka*); round ear-ring with *svastika* mark on it. This and the preceding figure are two of the most charming specimens from Ahichchhatrā.

No. 10164, from the Śiva temple in ACI, R. 83, –26′.

115. Head of Śiva (2·6″) with hair arranged in a high topknot and bound by a fillet in the centre. Loose strands of locks fall on either side in parallel rows. Prominently arched eyebrows, a high nose-bridge, elongated face, extended oblique eyes, round chin. Round button ear-ring in left ear. A beautiful specimen of Gupta art. Bright terracotta colour.

No. 6025, ACII, north temple-wall, –50′.

(*a*) Śiva's head (2·6″) similar to above with the same kind of hair. Damaged on right side.
No. 6098, ACII, R. 138, –43′.

116. Head and bust of a female figure (3″) showing hair adorned with a crest and surmounted by a cylindrical topknot of matted locks. Round disc in right ear, left ear elongated.

No. 10114, ACI, R. 115, –48′.

117. Head, much worn, but showing a style of coiffure in which the right side consists of matted locks and the left of a mass of spiral curls, being the only example of this charming style of hair (*jaṭā* and *alaka* combined) from Ahichchhatrā. It is comparable with a group of about half a dozen excellent heads from Rājghāṭ near Banaras.[1] These heads may be regarded as of the half-male and half-female Ardhanārīśvara form of Śiva-Pārvatī.

118. Torso of an image of the goddess Chāmuṇḍā (11·5″) distinguished by emaciated ribs, pendent breasts and sunken belly. The noteworthy feature is the representation of scorpions and lizards on the lean body of the goddess as a mark of her horrid aspect. We have a literary reference to this iconographic detail in the

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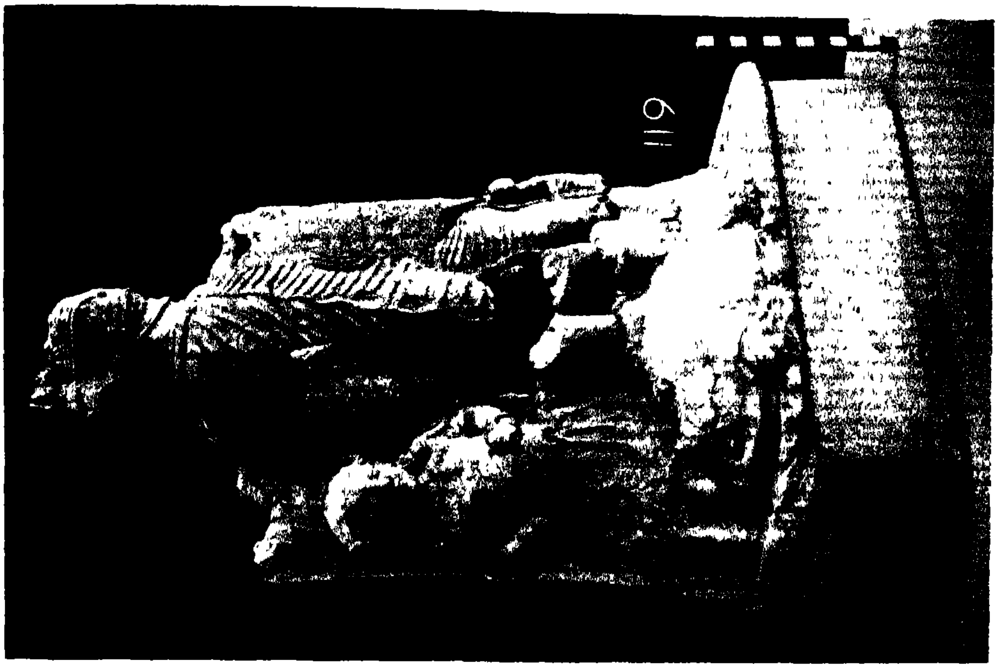
[1] V. S. Agrawala, 'Rajghat Terracottas', *Journal of the U.P. Historical Society*, XIV (July 1941), p. 4, fig. 12.

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PLATE XLIII



A. *Type 11, miscellaneous gods and goddesses.*



B. *Type 11, figure of Yamunā.* (Scale of inches.)



Type 11, head of Śiva, front and side views.





Type 11, head of Pārvatī, front and side views

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Type 11, torso of Chāmuṇḍā

Tilakamañjarī of Dhanapāla (eleventh century A.D.), where the author describing a *vetāla* speaks of small reptiles lurking in the intervals of his skeletal ribs.[1]

No. 8768, ACIII, KX/F2c, –46½′; St. III*c*: A.D. 450–550.

118*a*. The goddess Chāmuṇḍā seated on a high pedestal (1′ 1·5″) distinguished by her emaciated body and pendent breasts. Two corpses are thrown on the front and left side of the pedestal. This agrees with the description of the goddess as *preta-vāhanā*, 'borne on corpses'. A nude figure of a young boy on her left shares with her the pedestal. The arms of another figure carried on her back are also visible in front.

No. 6960, ACIII, KX/A3h, –45′; St. III*b*: A.D. 550–650.

119. Gaṅgā and Yamunā, two life-size images (the latter illustrated), installed in niches flanking the main steps leading to the upper terrace of the Śiva temple in site ACI. Gaṅgā stands on her vehicle the *makara*, and Yamunā the tortoise. Kālidāsa mentions the two river goddesses as attendants of Śiva (*Kumārasambhava*, VII, 42), and this occurs as a regular feature of temple-architecture from the Gupta period onwards, the most notable example being the door-jambs of the Brahmanical temple at Devagarh.[2]

TYPE 12. GODDESS DURGĀ KILLING THE BUFFALO-DEMON

The goddess Durgā subduing the Mahisha- (Buffalo-) demon is known as Mahishāsuramardinī. Of the twenty specimens found at Ahichchhatrā, seven originate from ACIII and the rest from other plots. The evidence of stratification shows that the goddess first makes her appearance in Stratum III*c*, i.e. about A.D. 450–550, and continues throughout Stratum III*b*, III*a* and Stratum II. The period *c.* A.D. 550–750 was the time when this goddess enjoyed the highest popularity, as evinced by frequent literary references to her in Bāṇa under the name of Kātyāyanī.[3] He also says that she was but a form of Ambikā.[4]

On the iconographic side we find a standing female figure with four hands, later on increased to six and eight. She is engaged in subduing a buffalo standing on its hind legs with head uplifted in front of the goddess and body stretched across her legs. In the two upper arms she holds attributes, her lower right hand is placed on the back of the animal and the left swung around its neck in an attitude betraying affection rather than terror. The lion is conspicuous by its absence in the figures from Ahichchhatrā.

120. Four-armed goddess (4·25″) in the act of killing the Buffalo-demon, represented in his animal form. The head is thrown up on the left side, and the goddess is strangling it with her left hand. Neither in this nor in (*a*) and (*b*) below is the demon pierced with a spear. The figures are pressed out of a mould with deep furrowed lines marking the ornaments and drapery as well as the horn of the animal. The clay is of brick-like hardness.

No. 6412, ACIII, KX/A2h, –45′; St. III*b*: A.D. 550–650.

(*a*) Four-armed goddess killing the Buffalo-demon (2·5″). A bodice covers the breast of the goddess. Her left arm is swung round the animal's neck. The plaque is slightly concave at the back due to the pressing of the clay in the mould. A layer of burnt sand is still adhering. All the three specimens are burnt hard, and there is no mixture of husk in the clay.

No. 8106, ACIII, KX/L1a, –47′; St. III*c*: A.D. 450–550.

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[1] *Tilakamañjarī*, Nirnaya Sagar Press edition, p. 47, describing a *vetāla* says: *atikṛiśatayā kāyasya dūradarśitonnatīnāṁ parśukānām antarāladroṇīshu nidrāyamāṇa-śiśusarīsripam*, 'in his very emaciated body the prominently exposed ribs showed in their undulating spaces lurking young reptiles'.

[2] *A New History of the Indian People*, VI, The Vākāṭaka-Gupta Age (Lahore, 1945), p. 454, pl. IX, fig. 2.

[3] *Achiramṛidita-mahishāsura-rudhira-rakta-charaṇām = iva Kātyāyanīm*, *Kādambarī*, p. 11.

[4] *Ambikā-triśūlam = iva mahisha-rudhirārdra-kāyam*, *Kādamburi*, p. 31.

(*b*) Fragment (1·75") in the same style as above.

No. 4171, ACIII, KIX/E7j, –41′; St. I.

121. The goddess Mahishāsuramardinī seated in *bhadrāsana* (3·25") and piercing the animal with a trident (its end is now broken). In the right upper hand she holds a palm-leaf, in the left upper hand an elongated shield. The shield seems to be made of wicker-work and covered with hide on front and back. On the head of the goddess is a close-fitting helmet. She is wearing a tunic and skirt. It seems that the form with the spear or trident was later than the one in which the hand of the goddess rests on the back of the animal.

No. 10838, ACIII, KIX/E8d, –43′; St. III*a*: A.D. 650–750.

(*a*) Lower part of a rectangular plaque (4") showing the goddess Mahishāsuramardinī in a crude style.

No. 6309, ACIII, KIX/E5j, –42′; St. II, a roughly-modelled figure of about the ninth century.

122. Plaque (7·5") showing the six-armed Kātyāyanī. A pair of upper hands supports a tray-like object on the head. The lower right hand is placed on the back of the animal, and the left holds a snake. The ornaments and drapery are indicated by grooved lines. A profuse admixture of rice-husk with clay points to Stratum III*b* (A.D. 550–650) as the approximate period of the figure (see no. 107). This is one of a group of Mahishāsuramardinī figures found against the city-wall in association with a collection of twenty-nine other terracotta figurines of the multi-headed goddess described under Type 29.

No. 6586 (23), ACV.

123. Fragment of a plaque (2"×3·5") showing the haloed head of a female figure and a portion of the upper right hand holding a shield. It formed part of a very charming figure of the goddess Mahishāsuramardinī. The hair is arranged in three receding tiers of spiral curls (*valībhṛid-alaka*) on the two sides of the head. The central mass of hair is decorated by a flowery boss.

The circular shield shows a fringe of small fluttering fly-whisks on its outer margin. Curiously enough this feature finds mention in that encyclopaedia of post-Gupta culture, namely the *Harshacharita* of Bāṇabhaṭṭa, in the description of round shields made of a special kind of leather imported from the Kārmaraṅga country. Such shields, according to the author, bore a variegated appearance on account of the white fly-whisks fringing and fluttering on the outer margin.[1] Stylistically it is one of the best specimens which may be assigned to the early seventh century

No 805, a surface-find from site ACII.

124. The four-armed goddess Kātyāyanī (3·5") killing Mahishāsura. Upper right hand placed on the top of a tapering spear piercing the animal, lower right hand on its back, lower left hand on its neck and the upper left holding a round shield by its strap. The shield was padded and embroidered on the upper side. The hair on the head of the goddess is arranged in a frontal mass secured by a fillet and parted in the middle by a *sīmanta*-ornament, and combed in wavy locks to each side. Traces of original red paint on the face.

No. 9436, ACVII, GV/X9n, –38′. Stylistically it is related to figure no. 121 from ACIII (St. III*a*).

Type 13. Naigameśa, male and female types

A peculiar type of clay figurine, both male and female, occurs at Ahichchhatrā in Stratum III*b* and III*c*, roughly between A.D. 450–650. Its special feature is an animal face with goat-like features and long dangling ears having either pierced holes or slit-marks. Below a hooked nose the mouth is indicated by a deep-cut slit. The projecting simple

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[1] *Chañchach-chāmara-kirmīra-Kārmaraṅga-charma-maṇḍalam*, 'circular shields covered with the dark-coloured leather imported from the Kārmaraṅga country (one of the islands in South-east Asia), made variegated by the fringe of fluttering white fly-whisks', *Harshacharita*, p. 207. For the identification of the Kārmaraṅga country with a region of the Malaya Peninsula, see Sylvain Lévi, *Pre-Aryan and Pre-Dravidian India*, translated by P. C. Bagchi (Calcutta, 1929), p. 105.

topknot on the head is also pierced by one or two holes. The arms extend obliquely from the shoulders and the hands all without details of fingers, are indicated simply by a spoon-like depression. The same feature occurs in the feet when they are preserved (cf. no. 126).

The goat-like head connects this type with that of the god Harinaigameśa with whose iconography we are made familiar by about a dozen stone specimens from Mathurā. Originally he was invoked as the presiding deity of child-birth and was considered to be but another form of the god Skanda under the name Naigameya. In the course of time he became popular in both male and female forms with a goat's head and in female form with a human head. All the forms occur in Mathurā art.[1] Amongst the terracotta specimens too we find three varieties existing together.

The question of identifying the three forms presents a problem. The male goat-headed type is certainly that of Naigameśa or Naigameya, which was but another name of Skanda. The female counterpart may reasonably be identified with Shashṭhī, the consort of Skanda, who as guardian-goddess of child-birth was the object of universal worship, specially during the period from A.D. 450 to 650.

The type in clay appears to have had a wide distribution in North India as specimens are known from such remote places as Mathurā, Ahichchhatrā and Rājghāṭ. The same type with a human face is present in many specimens from Rājghāṭ, and in a couple of specimens from Ahichchhatrā. One example is illustrated by Gordon,[2] but incorrectly stated to be as old as the early Mother Goddess figurines of the archaic style. The stratigraphical evidence now available fixes the duration of the type to Stratum III*b* and III*c*, corresponding to the period A.D. 450–650, during which time the worship of Shashṭhī and her male counterpart had reached its climax.

The first specimen (no. 125) is a miniature clay reproduction of an original Mathurā stone figure distinguished by a male figure with goat's head carrying a child on each shoulder. The other figures both with the goat's head and the human head with long ears are ramifications of the same formula.

Sub-type (i). Male goat-headed figures

125. Head and bust of a male figure with goat's head having projecting horns, carrying a child on each shoulder. Similar to no. E.1 in the Mathurā Museum (Vogel, *Catalogue of the Mathurā Museum*, p. 107).

No. 6835, KIX/E9j, —44′; St. III*a* : A.D. 650–750.

126. Torso (5″) of male figure with left arm and left leg ending in a shallow cup-like depression. Traces of parallel black lines on the leg marking folds of the drapery. Hand-modelled.

No. 8500, ACIII, KIX/E6d, —43½′; St. III*b* : A.D. 550–650.

127. Head and bust of similar figure (2·5″) with goat-like face, hooked nose, slit mouth, dangling pierced ears and projecting hair-crest on head with a hole.

No. 602, ACIII, — 44′.

(*a*) Figurine as no. 126 with slit ears (2·8″).

No. 6703, ACIII, KIX/K7h, —46′; St. III*b*.

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[1] For a fuller account of Mathurā specimens of the goat-headed male and female forms and human-headed female form, see my paper, 'The Presiding Deity of Childbirth amongst the Ancient Jainas, with special reference to figures in the Mathurā Museum', *Jaina Antiquary*, March 1937, pp. 75–79; also G. Bühler, 'Specimens of Jaina Sculptures from Mathurā', *Epigraphia Indica*, II (1893), p. 316.

[2] 'Early Indian Terracottas', pl. XII, fig. 7.

(*b*) Head of similar figure (1·7").
No. 8472, ACIII, KIX/K5j, −45′; St. III*b*.

128. Head of similar figure (1·5") with hole in crest and slit incision in ears.
No. 9034, ACVII, GV/D6c, −39½′.

129. Head and bust of similar figure (3") with pierced crest, long gashed ears, open goat-like mouth as if in the act of bleating.
No. 9347, ACVII, GV/D9a, −39½′.

(*a*) Head of similar figure (1·5") with two holes in the rectangular crest.
No. 11201, ACV/Z6d, −59½′. It appears to be out of its context in this locus.

Sub-type (ii). Female goat-headed figures

130. Female figure (3") with a goat's head, long bored ears, open mouth and prominent breasts. Traces of two holes in the crest at the back of the head.
No. 8835, ACIII, KIX/E10g, −47′; St. III*c*: A.D. 450–550.

(*a*) Female figure (3·5") as above, with long slit ears and a bleating mouth.
No. 6998, ACIII, KIX/E4e, −46′; St. III*c*.

Sub-type (iii). Figures with human faces

131. Head (1·5") of a female figure with long dangling ears deeply grooved, crest pierced with a hole, vermilion dot between eye-brows, eyelids indicated by raised ridges and round face with narrow chin.
No. 8161, ACIII, KIX/K8a, −45′; St. III*b*: A.D. 550–650.

(*a*) Head and bust of a female figure (2·5") with long slashed ears, similar to the above.
No. 921, ACIV, MIX/H9c, −37½′.

(*b*) Female head with tripartite hair and a circular dot on the forehead, raised eyebrows and eyelids and hooked nose; features similar to above, but without the dangling ears which seem to have got detached.
No. 3738, ACIII, KX/A5h, −42′.

132. Female head with round face and short chin allied to the above. In no. 131(*b*) and this specimen there is a hole at the back. The facial type of these heads has its closest parallel in the faces of the goddess Ardoksho portrayed on the reverse of the later Kushāṇa coins, which were current in the Punjab and the Kābul-valley from about A.D. 200 to 450.[1]
No. 6719, ACIII, KIX/E9f, −44′; St. III*a*: A.D. 650–750.

133. Standing male figure (5·5") with undigitated legs separated by an arch, torque round neck, diagonal necklace and girdle, applied goat-like eyes, slit mouth, dangling ears with holes and crest behind head with a hole.
No. 4381, ACIII, KX/A1d, −41½′; St. III*a*.

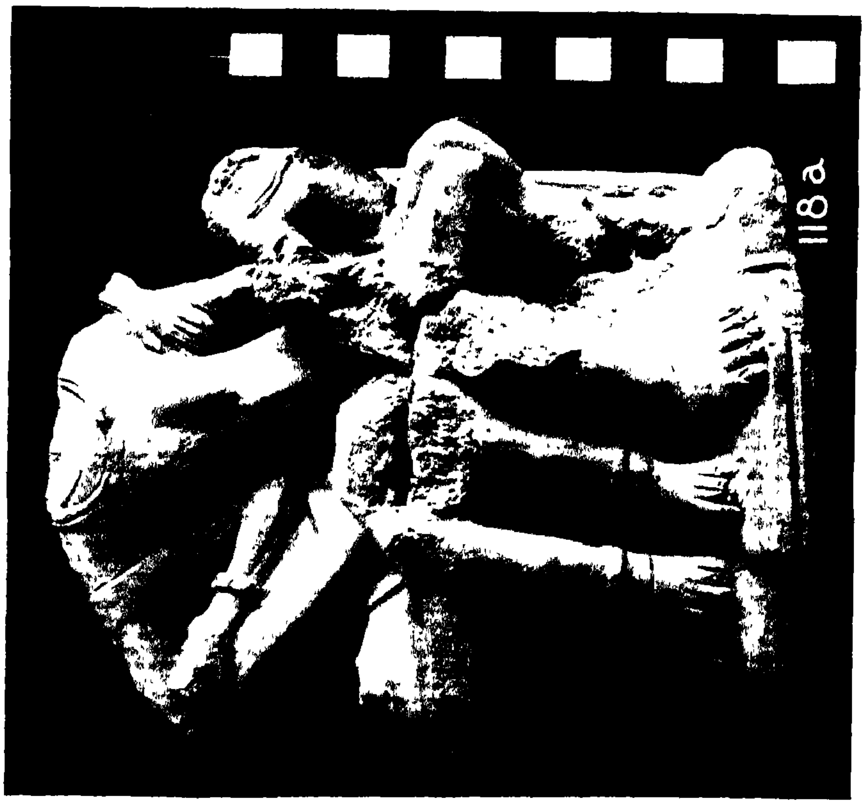
[1] Cf. A. Cunningham, *Coins of the Later Indo-Scythians* (London, 1895), pl. II, figs. 3 and 4.

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PLATE XLVII



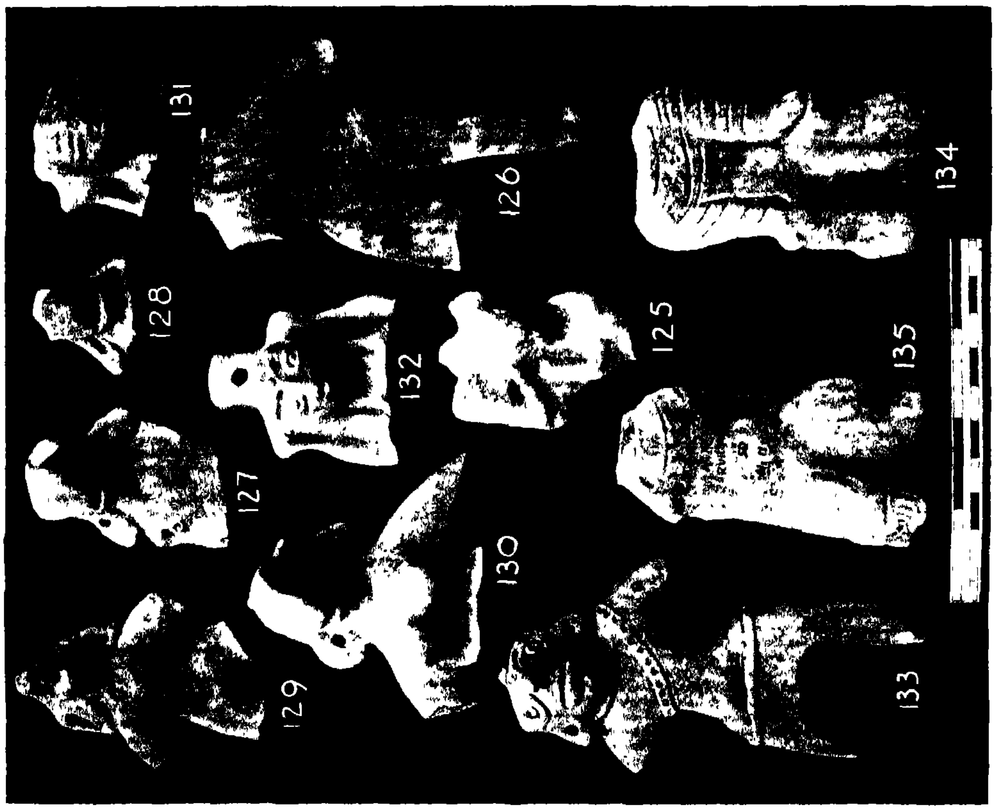
B. *Type 12, Goddess Durgā killing the Buffalo-demon*



A. *Type 11, figure of Chāmundā.* (Scale of inches.)



B. *Type 14, figure of Buddha.* (Scale of inches.)



A *Type 13. Naigamesa, male and female types*

Sub-type (iv). Feline figures

134-135. Figures of a cat squatting with hands on knees, tail curling up. A prominently pierced hole at the back apparently for the insertion of a decorative head appendage; another hole pierced in the round base from side to side. The head is missing. The pose of the figure suggests that it was not merely an animal but represented some form of deity. In the *Kādambarī* and *Harshacharita* of Bāṇabhaṭṭa we have a reference to a goddess worshipped at childbirth known as Jātamātṛi-devatā, also called Charchikā, having the face of a cat (*mārjārānanā, Kādambārī*, p. 78; *Harshacharita*, p. 12).[1]

No. 6067, ACII, JVIII/U9f, –64′; no. 11074, ACXV, RVII/K9f, –50′.

TYPE 14. BUDDHIST IMAGES

Specifically Buddhist images from Ahichchhatrā are limited to about half a dozen specimens only. The most important example is an inscribed image with the name of Bodhisattva Maitreya engraved on its pedestal. It is of Mathurā red sandstone and is the only inscribed Maitreya found so far. In style it belongs to the Kushāṇa period; it was apparently imported from Mathurā.

Another fragment of red sandstone (no. 1342, ACIII) shows a seated Buddha statuette of early Kushāṇa period with, on the reverse, the foliage of the Bodhi tree and garlands hanging from it. This is a well-known style of Buddha image in the Mathurā school.[2]

136. In terracotta, two rectangular plaques have been found, one showing the Buddha seated in *padmāsana* (no. 11309) and the other showing Buddha standing in *abhayamudrā* (no. 11318), the former illustrated. The figures wear a profusely-folded *saṅghāṭī* covering both shoulders. In the seated image an attendant holding a fly-whisk in the right hand waits upon the Buddha. Both are surface-finds from Rāmnagar village, but may be assigned to the sixth-seventh century A.D. on grounds of style.

GROUP VI. GUPTA MOULDED PLAQUES

A very considerable group of terracotta figurines, all from Stratum III, represents men and women conforming to a set art-style. They are cast from single moulds and with moderate relief; parts of the body, such as the suspended arms and legs, are seldom rendered free. The figures are all of small size and made from finely kneaded clay, moderately baked. There is none of the profuse mixing of rice-husk which is found in the larger specimens mostly from Stratum III*b*.

The types, both male and female, are remarkable for the great variety of styles of hair-dressing. The rendering of the human form is simple and restrained, but the form is always elegant and the faces charming, with sharp pointed nose, full eyes, and oval outline. The females invariably have full round breasts pressing against each other, without intervening space as in the preceding Kushāṇa age. It was a feature praised as a mark of feminine beauty by Kālidāsa, who, in describing the blooming youth of the maiden Pārvatī, remarks that her breasts were so closely pressed together as not to admit even a lotus-filament between them.[3] Both men and women show minimum of ornamentation, relying more

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[1] There was a shrine of Charchikā Devī at Benares (*Skanda-Purāṇa*, Kāśī Khaṇḍa, xcvii). In the Bhilsa inscription of the time of the Paramāra king Naravarmadeva (1104–33) occurs a panegyric song of the goddess Charchikā, the family deity of the dynasty, to whom a temple was dedicated.

[2] Cf. *Annual Bibliography of Indian Archaeology, 1934* (Leyden, 1936), p. 14, pl. IV, figs. *a* and *b*.

[3] *Anyonyam=utpīḍayad=utpalākshyāḥ stanadvayaṁ pāṇḍu tathā pravṛiddham, mriṇāla-sūtrāntaram=apy=alabhyam, Kumārasambhava*, I, 40.

on the natural charms of the body than on ornate make-up. But this fondness for elegant simplicity is compensated for by the extreme loveliness of the hair-styles.

The varieties in hair-dressing show that men and women must have been foppish to a degree. The most common way of doing a woman's coiffure was a trefoil style with the hair arranged in two side-masses and a central topknot (fig. 1, 12). The male fashion took the form of twisted spiral curls arranged in parallel tiers and superimposed one above the other on the two sides reaching almost to the shoulder (fig. 1, 7). The spiral curls are referred to in the works of Kālidāsa and Bāṇabhaṭṭa as *alaka* or *valībhṛid-alaka,* and rows of frizzled locks (*alakāvalī*) occur as an accepted mark of beauty.

The different forms of hair-dressing afford a convenient basis for classifying the male and female figures of this important group. As this type is widely distributed, extending from Begrām in Afghanistan to Rājghāṭ near Benares and Pāṭaliputra (Patna), it is of interest for comparative purposes to record the distinctions of hair-treatment in the Ahichchhatrā heads in some detail. The male and female figures, including both detached heads and busts, are equally numerous, about fifty each in a total of one hundred from the excavations.

The male heads conform to the ideal of beauty set forth in Sankrit Buddhist literature of the times. Speaking of a new-born prince, the *Divyāvadāna* and the *Vinayavastu* repeat as a mark of beauty that the prince possessed a head of the form of a round parasol, a rectangular broad forehead, twin eyebrows drawn in a single continuous line, and a prominent nose-bridge.[1] The male heads in our group literally illustrate these features with documentary precision.

A. The following styles of hair are noted amongst the men's heads:

(i) *Chhatrākāra*. The hair crowns the head as a semi-circular parasol with locks arranged like ribs close to each other, all radiating from a topknot (fig. 1, 6). This distinctive style marks about five-sixths of the total number of male heads. On the two sides the spiral locks (*alakāvalī*) descend in three or more receding horizontal tiers. In all the male and female heads there occurs at times a crest or topknot pierced by a suspension-hole.

(ii) *Chattrākāra* with parting *sīmanta.* The hair is arranged parasol-like with locks above and on the sides as in (i), but marked by a central parting referred to in literature as *sīmanta* or *keśavīthī* (fig. 1, 7). Several specimens with the bust also preserved (cf. no. 144, below, p. 140, and no. 147, p. 141) testify that the parting of the hair was a fashion in vogue amongst men also.

(iii) *Trefoil style* in which the hair is arranged in two side-masses with or without parting, backed by a crest (fig. 1, 8). This was a favourite style, mostly amongst women, with great variation. The lateral masses are sometimes arranged like pendent honeycombs (as in no. 149(*a*)) or depend in the form of two very conspicuous bosses near the ears (as in no. 150). In one instance the number of bosses is two on each side (no. 151).

B. Amongst female heads the general style is trefoil, with two side-appendages and a crest (*śikhaṇḍa*) in the centre. The following specialized forms of coiffure should be noted:—

(i) *Honeycomb style.* Only two specimens at Ahichchhatrā show this fashion, with the lateral masses rendered like a honeycomb of cellular structure (fig. 1, 11). This beautiful style of hair-dressing must have appeared extremely attractive, and it had an international

[1] *Dārako jātaḥ abhirūpo darśanīyaḥ prāsādiko gauraḥ chhatrākāraśirāḥ dīrghabāhuḥ vistīrṇa-lalāṭaḥ yugmabhrū uttuṅganāsaḥ, Vinayavastu,* 'Gilgit Manuscripts', *Indian Historical Quarterly,* XIV (1938), p. 422.

vogue in the ancient world, being patronized by society women in Rome. In Mathurā and specially Rājghāṭ charming specimens of this coiffure have been found.[1]

(ii) *Trefoil style* with a plain flat band in the centre (fig. 1, 12). The side-masses and the topknot being a common feature of all female heads, distinctions are based on whether or how the parting band is decorated. In the first set the parting band is without any kind of adornment.

(iii) The hair has a parting in the middle, flanked by two vertical rows of locks (fig. 1, 13, as in nos. 160–163).

(iv) *Sīmanta with chaṭulā.* Central parting of the hair adorned with a jewel (fig. 1, 14), to which Bāṇa makes a reference as *chaṭulā-tilakamaṇi*[2] (nos. 164, 166). In some specimens the crest-jewel is behind a raised roll of hair on the head (no. 167) and in one example the side-masses of hair are beautified by three pendent *alaka*-locks on each side (no. 165).

(v) *Bhramaraka style.* The combed space above the forehead is beautified by an ornament representing a bee or *bhramara* with out-spread wings (fig. 1, 15) from which this style was known as *bhramaraka*. It was a charming mode of doing the hair. Two good specimens were found at Ahichchhatrā (nos. 168 and 169).

TYPE 15. MALE FIGURINES

Sub-type (i). Chhatrākāra-śirāḥ

137. Man's head (2·3″) covered with radiating locks of hair in the form of a parasol, crest (*śikhaṇḍa*) at the back, and frizzled locks falling on both sides in parallel rows (fig 1, 6). Extended right lobe cloven, a discoid ring in left ear which is referred to as *eka-śravaṇāśraya tāṭaṅka* by Bāṇabhaṭṭa.[3] The disc-ring in the left ear occurs often in both male and female heads of this type.

No. 6806, ACIII, KIX/E10g, –44′; St. III*a*: A.D. 650–750.

(*a*) Head as above (2·6″).

No. 6438, ACIII, KIX/K8f, – 46′; St. III*a*.

(*b*) Man's head and bust (2·5″) with hair as above.

No. 856, ACIII, KIX/K10j, –45′; St. III*a*.

138. Head as above (2·5″).

No. 1044, ACIII, KX/A4k, –39½′; St. I: A.D. 850–1100. This is stylistically an anachronism and should belong to a lower level.

(*a*) Man's head (2·3″), as above.

No. 1274, ACIII, KX/F7e, –39′; St. I.

(*b*) Head and bust (2·5″), as above.

No. 483, KX/A5h, – 42½′; St. III*a*.

(*c*) Male head (2·6″), as above.

No. 1205, ACIII, KX/F7d, –39′.

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[1] See 'A palace scene on a terracotta panel from Mathurā', *Journal of the Indian Society of Oriental Art*, X (1942), illustration on p. 73; 'Rajghat Terracottas', *Journal of the U.P. Historical Society*, XIV (1941), p. 3, fig. 8.

[2] *Sīmanta-chumbī chaṭulā-tilakamani, Harshacharita*, I, p. 32.

[3] *Eka-śravaṇāśrayais = tāṭaṅkīkṛitaiḥ, Kādambarī*, text, p. 215.

(*d*) Male head (2·4"), as above. Traces of red paint on the cheeks, forehead and locks, showing that these figurines were once painted. This is confirmed by the terracottas of the present type from Rājghāṭ, Bhīṭā and Begrām.

No. 8465, ACIII, a surface-find.

139. Man's head and bust (3·5") covered with a gorgeous wig-like top of hair, arranged in frizzled locks as above. The crest is broken but a suspension-hole is preserved. Traces of dark red paint on the face, neck and breast.

No. 9036, ACVII, GV/D7c, –40′.

(*a*) Male head (1·5"), as above.
No. 9039, ACVII, GV/D7c, –40′.

140. Male head (1·5"). Traces of red paint on the face.

No. 9191, ACVII, GV/H9j, – 39½′.

141. Head and bust, as above.

No. 9041, ACVII, GV/D8c, –40′.

(*a*) Head and bust, as above.
No. 9194, ACVII, GV/H9j, –39′.

142. Male figurine with head (2·7"), as above, traces of red paint all over the body. Right arm suspended, left akimbo.

No. 9021, GV/D6c, –42′.

(*a*) Male head, as above.
No. 9201, ACVII, GV/C9k, –39½′.

(*b*) Male head and bust, as above.
No. 9457, ACVII, GV/D10f, –41′.

143. Male head, as above.

No. 11324, ACV, surface-find.

(*a*) Male head, as above (2·25"), suspension-hole in crest.
No. 10195, ACI.

(*b*) Male head, as above (2·5"), suspension-hole in crest.

(*c*) Head with a double parasol-like arrangement of hair on top. Traces of red paint on chin.
No. 820, ACVII, GV/C7c, –38½′.

Sub-type (ii). Style of parasol-like hair parted in the middle (chhatrākara with sīmanta)

144. Head and bust (3") with hair parted in the middle, combed in plain surface on the sides and then falling in spiral curls (fig. 1, 7). A leaf-like pendent ornament in left ear, probably a pendant of ivory (*dantapatra-karṇapūra*).

No. 3710, ACIII, KX/A6j, –44′.

145. Head (1·4″) with the style of hair-dressing as in no. 144 but frizzled locks arranged in two receding tiers; profuse traces of red paint.

No. 9191, ACVII, GV/H9j, −39′ 6″.

146. Head, as above.

No. 4248, ACIII, KX/A7f, −38′; St. I: A.D. 850–1100.

(*a*) Head, as above. Much worn.

No. 6729, ACIII, KIX/E9h, −43′; St. III*a*: A.D. 650–750.

(*b*) Head, as above. Hair arranged in five receding tiers, *dantapatra* in left ear and *tāṭaṅka* in right.

No. 3571, ACIII, −43′.

(*c*) Head, as above.

No. 6317, ACIII, KIX/E9f, −41½′; St. I, but stylistically earlier.

147. Head and bust (3″) with double parasol-like parted hair on top and spiral curls on sides. Leaf-like ornament in both ears. Three lines on the neck (*trivali-grīvā*).

No. 9131, ACVII, GV/C9g, −38½′.

(*a*) Head, as above.

No. 3816, ACIII, KX/H2c, −43′.

(*b*) Head, as above. Suspension-hole at base of crest. Round ring in both ears.

No. 8158, ACIII, KIX/E8j, −45′; St. III*b*.

(*c*) Head, as above, much worn.

No. 4061, ACIII, KX/A3j, St. I; apparently an early piece in a later level.

(*d*) Head (2·5″) with parted hair on top, and side-strands in five receding tiers. Leafy ornament in right and disc in left ear.

No. 8062, ACIV, KIX/S10g, −44′.

(*e*) Head, as above, but base of topknot bound with garland; three disc-rings in left ear.

No. 6213, ACV, QIX/O6c, −43′.

Sub-type (iii). Trefoil style

In one class the trefoil hair is rendered in the form of two side-masses and a crest with parting in the centre. In the other the masses of hair either become very conspicuous or their number is increased to four.

148. Male figure (3″) with trefoil hair on head (fig. 1, 8). Left hand suspended, right akimbo. *Dantapatra* in right and *chakra-kuṇḍala* in left ear.

No. 8006, ACIV, MIX/S10a, −42′.

(*a*) Male figure (2·5″) similar to above.

No. 9243, ACVII, GV/B8f, −41′.

(*b*) Head, as above.

No. 6704, ACIII, KIX/E10g, −43′; St. III*a*: A.D. 650–750.

149. Head (1·2") with two side-masses and middle parting in front of crest. Traces of red colour.

No. 3807, ACIII, KX/H2c, –43′.

(*a*) Head (6") with two heavy rolled masses of hair on the sides, central parting and crest, leafy ornament in right and large round *kuṇḍala* in left ear. There is also a crudely incised human face on the back.

No. 6740, ACIII, KIX/E9g, – 43′; St. III*a*: A.D. 650–750.

(*b*) Male head with side-masses of hair, as above. Finger-marks on back, much worn.

No. 6471, ACIII, KIX/K10h, –46′; St. III*a*.

150. Head with hair parted in the mddle and combed sideways, with pendent locks terminating in two globular masses. Traces of red paint all over. Suspension-hole in crest.

No. 9132, ACVII, GV/C9g, –38½′.

151. Head with two side-masses of hair sub-divided by a middle groove. The facial type in the sub-group with the side-masses of hair is oval, with plump cheeks and a broad chin.

No. 6400, ACIII, KIX/K6d, –43½′; St. III*a*.

(*a*) Head with hair parted in the middle, locks combed sideways and finishing in two lateral masses.

No. 891, ACIV, MIX/H1d, –32′.

Sub-type (iv). Male heads with haloes

A small group of terracotta figurines with hair arranged in flowing curly locks represents men with plain circular haloes. In none of the specimens is the position of the hands now preserved, although it is apparent in two examples that the arms were detached from the bust by removing the intervening clay after casting. There is no sign of drapery on the body. It is not possible to identify the figures with any religious type, although the halo indicates divine rank. Two genuine specimens from ACIII relate the type to Stratum III*a*, which is in stylistic agreement with the other figures of this group. The hair is arranged in one or the other of the foregoing styles.

152. Head and bust (2·6") of male figure with a circular halo rising from shoulders. Curly hair on top falling in locks. Pendants in ears.

No. 6707, ACIII, KIX/E9g, –44′; St. III*a*: A.D. 650–750.

153. Figurine (1·9") as above, with hair treated in four side-masses as in no. 151.

No. 8689, ACIII, KIX/K9b, –45′; St. III*a*.

154. Haloed head and bust (2·6") as above, with curly hair parted in the middle.

No. 10189, ACI, R. 153, –24′.

(*a*) Haloed head and bust (2·3").

No. 1149, ACII, KX/F3a, –38′; St. I, but stylistically earlier.

(*b*) Haloed head.

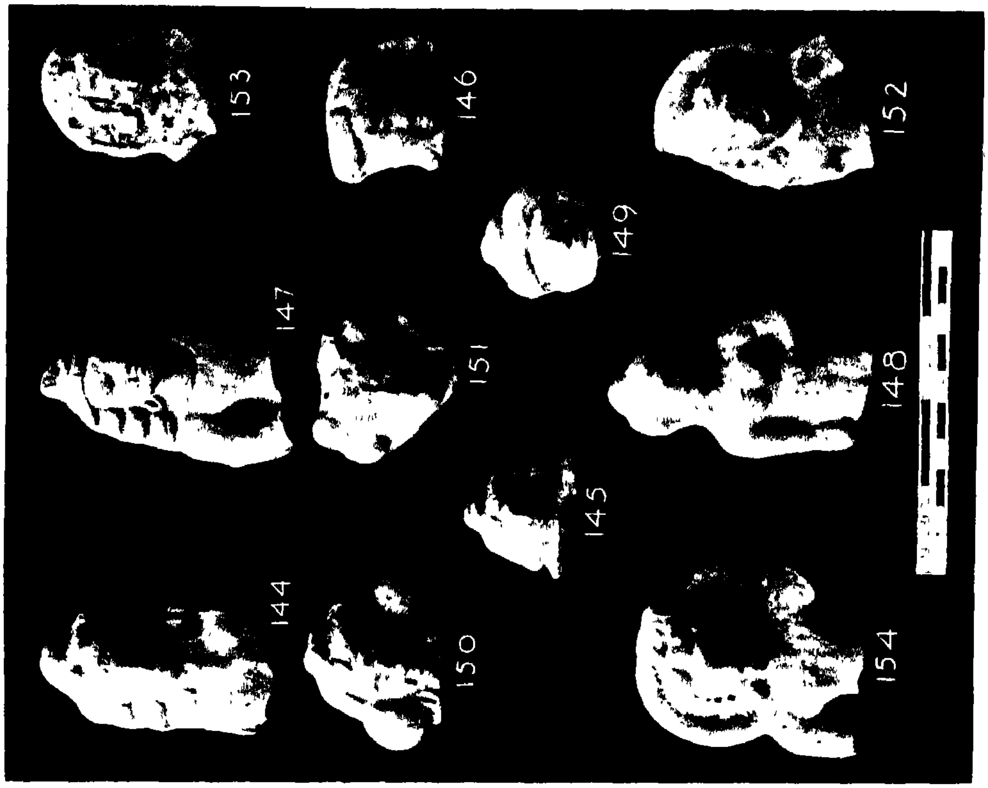
No. 10173, ACII, R. 153, –22′.

(*c*) Haloed head.

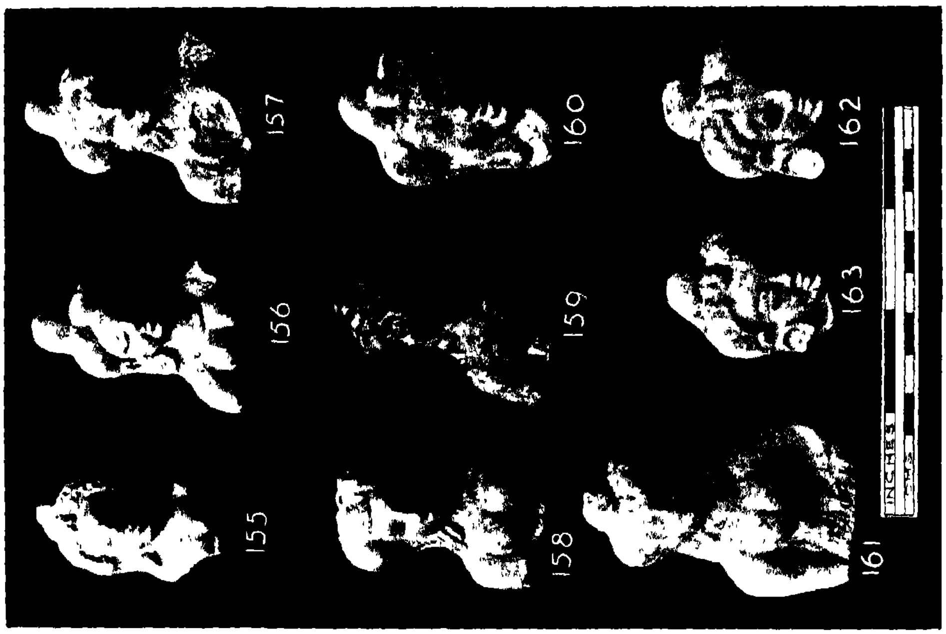
No. 10694, ACII; recovered from the débris of Dr. A. Führer's old excavation.



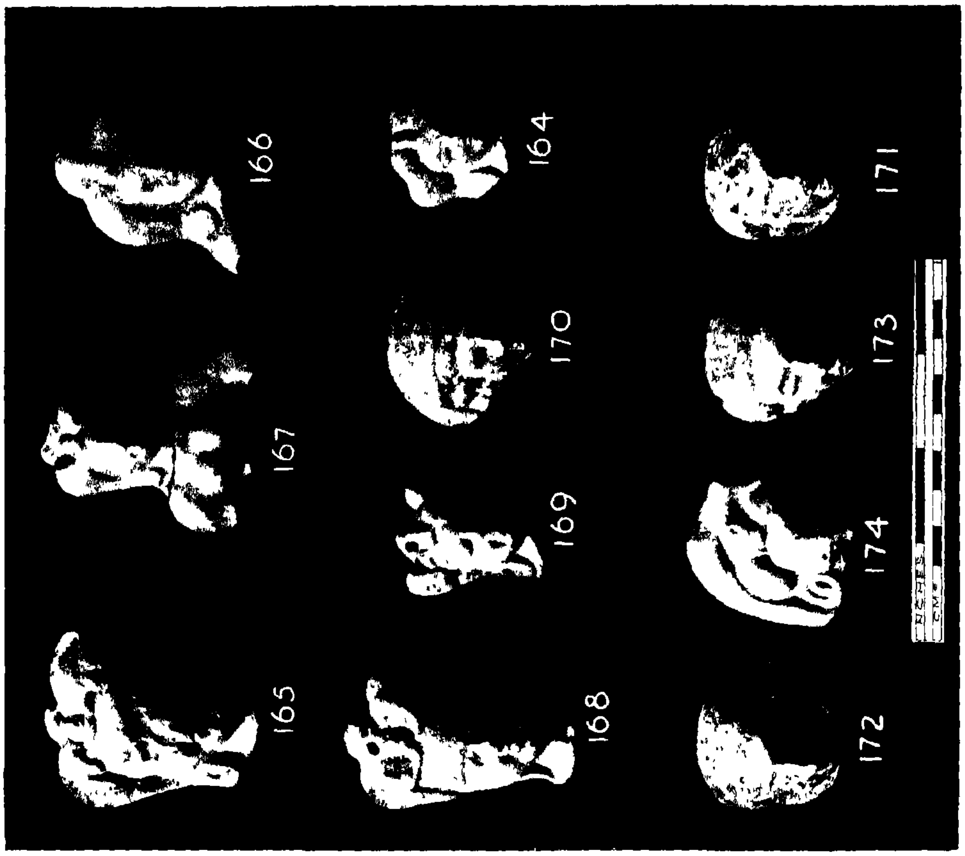
A. *Type 15, male figures of the Gupta period, showing styles of hair-dressing*



B. *Type 15, male figures of the Gupta period, showing styles of hair-dressing*



A. *Type 16. female figures of the Gupta period, showing styles of hair-dressing*



B. *Type 16. female figures of the Gupta period, showing styles of hair-dressing*

TYPE 16. FEMALE FIGURINES

Sub-type (i). Honeycomb hair-style

155. Head and bust (1·9″) of a female figure with trefoil coiffure (fig. 1, 11). The stippling on the side-masses of hair indicates the cellular structure of the honeycomb design. In the central parting is a pendent ornament and in the ears are worn round *tāṭaṅka-chakra kuṇḍalas.*

No. 3792, ACIII, KX/F3a, –46′; St. III*c*: A.D. 350–450.

156. Female head and bust as above, with hair in honeycomb style but without the crest-ornament. A single string (*ekāvalī*) is worn round the neck. It is one of the most charming figurines found at Ahichchhatrā.

No. 921, ACIV, MIX/H7a, –37′.

Sub-type (ii). Trefoil hair style with a plaited plain band in the centre

157. Woman standing (2·3″) with right arm suspended and left akimbo. Trefoil coiffure with two side-masses having a plaited band connecting them (fig. 1, 12).

No. 1332, ACIII, KX/F8c, –41′; St. II: A.D. 750–850.

(*a*) Head and bust (2·2″), as above.

No. 9472, ACIII, KIX/E10j, –43′; St. II.

158. Head and bust (2″) of woman as above. Coiffure similar but with two loose locks falling from the hair-masses on shoulders. A *dantapatra* in each ear.

No. 6005, ACII, R. 105, – 17′.

159. Head and bust (2·2″) of a woman. Trefoil hair, with a plaited band in centre. Red paint all over the surface, with patches of black paint.

No. 9345, ACVII, GV/D8a, –42½′.

(*a*) Head and bust (2·3″) of a woman, as above, with round ear-ring in left ear. The impression from the mould is imperfect on the middle portion of the face.

No. 1340, ACIII, KX/F5d, – 41′; St. II.

(*b*) Female figure (1·8″), as above, but from a crude mould. Round ear-ring in right ear.

No. 3684, ACIII, KX/A8k, –44′.

(*c*) Head and bust (2·2″) of woman with trefoil style of hair, as above.

No. 3968, ACIV, MIX/S8f, –43½′.

(*d*) Head and bust (1·8″) of a woman, wearing double round ring in left ear shown in profile.

No.8007, ACIV, MIX/S9a, –43′.

Sub-type (iii). Trefoil hair-style with double crest-pendant

160. Woman's head with trefoil hair. The style is distinguished by a double roll decorating the plaited band in the centre, representing two crest-pendants or perhaps simply two raised locks of hair (fig. 1, 13).

No. 3718, ACIII, –44′.

(*a*) Woman's head with coiffure as above. Suspension-hole at the other end of *sīmanta*. Round ring with a diametrical bar in left ear.

No. 1408, ACIII, KX/F4d, –43′; St. III*a*.

(*b*) Bust and head (2·2″) of a woman, with hair as above.

No. 8023, ACIV, MIX/S9b, −43′.

161. Head and bust (2·7″) with vertical hair-ridges in the centre. Right arm suspended, left akimbo; round *tāṭaṅka* in left ear.

No. 1379, ACIII, KX/F9a, −38½′.

162. Woman's head with a central double pendant (*chaṭulā*). A string fringing the hair on the forehead extends to the ears with round ear-rings depending from it.

No. 10602, ACII, R. 176, −42′.

163. Head with a double *chaṭulā* and pearl-string on the forehead. In the cloven lobes of the ear is a round *tāṭaṅka-chakra* (wheel-like ear-ring); the lower end of the pearl string being fastened to the knob of the disc inserted in the ear.

No. 9123, ACVII, GV/C9f, −38′.

Sub-type (iv). Trefoil hair-style with a single crest-pendant adorning the parting (sīmanta with chaṭula-tilakamaṇi or śikhaṇḍa-khaṇḍikā jewel)

In this style the central parting is adorned with a crest-jewel (fig. 1, 14). It must be noted that the crest-jewel is exclusively a decorative feature of the female coiffure; none of the male heads ever show it. Bāṇabhaṭṭa refers to this feature in the *Kādambarī*, speaking of the crest-jewel kissing the *sīmanta*. Specimens from ACIII with recorded data mostly come from Stratum III*a*.

164. Woman's head with a crest-jewel in the parting of the hair (fig. 1, 14). Round wheel-like *kuṇḍalas* in both ears.

No. 6409, ACIII, KX/F2a, −45′; St. III*a*: A.D. 650–750.

(*a*) Woman's head, as above.

No. 8141, ACIII, KX/L2e, −48′; St. III*d*-IV*a*: A.D. 300–450.

(*b*) Woman's head, as above.

No. 8971, ACIII, KIX/E9j, −43′; St. III*a*.

165. Woman's head (2·2″) with crest-jewel on the *sīmanta* fastened to the crest by a string. A frontal roll of hair between the two side-masses, having three spiral locks on each side.

No. 6813, ACIII, KIX/E9h, −43½′; St. III*a*.

(*a*) Woman's head with a simple crest-jewel and two round rings in the ears shown in frontal view.

No. 10603, ACII, R. 176, −42′.

166. Woman's head, as no. 165*a*. The left side-mass of hair ends in a big globular boss.

No. 839, ACII; found 'north of box-chamber no. 86'.

167. Head and bust (2·2″) of a woman with simple crest-jewel and a pearl string round neck.

No. 3995, ACIV, MIX/S5d, −44½′.

Sub-type (v). Bhramaraka style

The style was so called from the bee-like hair in the centre of the head. The effect is produced by arranging wing-shaped plaited hair on the two sides of the crest-jewel (fig. 1,

15). It must have been an attractive style of hair, imparting dignity to the face. In all specimens of this form there is a suspension-hole in the crest. On male figures this style of coiffure is seen in no. 108 (fig. 1, 9).

168. Woman's head (2·5″) with *bhramaraka* style of hair-dress. Plaited hair combed sideways resembling a bee perched with open wings (fig. 1, 15).

No. 8167, ACIII, KIX/K1b, –45′; St. III*a*: A.D. 650–750.

169. Woman's head (1·75″), as above.

No. 8051, ACIV, MIX/S9a, – 43′–45′.

Sub-type (vi). Abhisārikā style

A small group of female heads shows the head covered with a veil (*oḍhnī*). This was rendered by drawing the edge of the upper cloth over the head to cover the hair, the rest falling on the two sides. Bāṇa refers to it in the *Kādambarī* as *avaguṇṭhana*.[1] The veiled head is invariably mentioned in the case of *abhisārikā* women, i.e. heroines going out disguised to meet their lovers.[2] Mahāśvetā herself at the time of her love-seeking (*abhisāra*) is spoken of as veiled with a red cloak.[3] These romantic figures must have exercised a special appeal in an age which was conscious of the formula symbolized in them.

It is remarkable that the treatment of the veil on the female heads at Ahichchhatrā has a striking similarity with that on the veiled women's heads at Seleucia.[4]

170. Woman's head (1·5″) with hair in *alaka* style arranged on the forehead and the two sides covered by a receding veil. Traces of red paint on the veil and the face.

No. 4432, ACIII, KIX/E1j, –41′.

171. Woman's head (1·6″) with veil drawn on head covering the hair entirely and fastened with a garland or fillet on the right side. Round ring in left ear. Red paint.

No. 3611, ACIII, KX/F4e, –44′; St. III*a*: A.D. 650–750.

172. Woman's head (1·6″) with veil, fillet and round ear-ring as above. Traces of red paint on right cheek and chin.

No. 4359, ACIII, KX/A2f, –42′; St. III*a*.

173. Woman's head (1·6″), as no. 172. Faint traces of red paint.

No. 6014, ACII, R. 112, –43′.

Heads 171–173 are from the same mould.

174. Woman's head (1·7″) with trefoil hair or diadem covered by a veil arranged as a canopy round the head and falling at the two sides of the face. This style has remarkable similarity to a veiled head from Seleucia.[5]

No. 4390, ACIII, KIX/E9j, –42′; St. II : A.D. 750–850.

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1 *Uttaravāsasā uttamāṅgam = avaguṇṭhya*, 'covering the head with the upper cloth', *Kādambarī*, p. 251.

2 *Nīlāṁśuka-rachitāvaguṇṭhanāsu abhisārikāsu*, 'women with blue veil trysting in darkness', *Kādambarī*, p. 162.

3 *Raktāṁśukena kṛitaśirovaguṇṭhanā*, 'with a red veil trysting in moonlight', *Kādambarī*, p. 163.

4 Van Ingen, op. cit., pl. LXII, figs. 443, 444, 445.

5 Ibid., no. 1069, pl. LXII, figs. 450, 451.

Sub-type (vii). Headless busts of women

A limited number of female busts detached from heads have been found and it is thought fit to record them here for the stratigraphical data furnished.

In one case (no. 175) the fragment shows several concentric striped bands in saffron colour, indicating the rich drapery that was worn at the time (fig. 1, 5). The first band was marked on the neck, the next one passing below it from shoulder to shoulder, the third touching the upper line of the breasts and the fourth, now indistinct, touching the lower edge of the breasts, the last two joined by vertical stripes passing outside the breasts.

The terracotta figurines of this period were richly adorned by colour and painted lines to indicate the striped and chequered drapery, black hair, black eyebrows, etc. A majority of them seem to have been originally coated with a slip, then painted in a monochrome and finally decorated with a variety of colours—red, pink, yellow and white. Kālidāsa only once describes a terracotta figure in his works (*Śakuntalā*, Act VII) and there he does not fail to notice that the figure representing a toy-peacock was painted with colours (*varṇachitrita-mṛittikā-mayūra*). Similar striped bands can also be detected on specimen no. 176, both on the neck and on the four sides of the breasts, the whole forming a bodice of striped pattern.

175. Female bust (1·3"). No. 9212, ACVII, GV/D10d. (Fig. 1, 5.)

176. Female bust (1·7"). No. 9195, ACVII, GV/U9j, –39′.

177. Female bust with prominent breasts. A raised line below the neck indicates a tight-fitting bodice.
No. 9311, ACVII, –42′.

178. Female bust (2").
A special feature is the single string of large round pearls named *ekāvalī* in the works of Kālidāsa and Bāṇa. Its central bead is cylindrical and bigger than the rest and, according to literary texts, was made of sapphire (*madhya indranīla*).[1] This style of *ekāvalī* forms a typical feature of the Gupta figures, and is an unmistakable item of ornamentation in many of the Ajaṇṭā paintings.
No. 6093, ACII, R. 138, –43′.

179. Bust of a woman (2") seated in profile. She is wearing a single string of graded pearls but without the elongated bead of sapphire. This kind of string is most probably the *nakshatramālā*, the star-necklace consisting of twenty-seven graded pearls.
No. 10700, ACII.

(*a*) Female bust (1·6"). No. 6303, ACIII, KX/A1e, –42′.
(*b*) Female bust (1·6"). No. 4364, ACIII, KX/A2f, –42′.
(*c*) Female bust. No. 6705, ACIII, KIX/E10g, –43′.
(*d*) Female bust (1·8"). No. 473, ACIII, KX/L6b, –42′.

180. Female torso (3"). No. 9439, ACVIII, GV/X9f, –38′.

TYPE 17. MOTHER-AND-CHILD (STRATUM III*b*: A.D. 550–650)

An interesting group of terracottas from Ahichchhatrā represents a female figure with a child in her arms. Stylistically the plaques are related in every respect to the male and female figurines described above, all produced from shallow moulds, and also, where

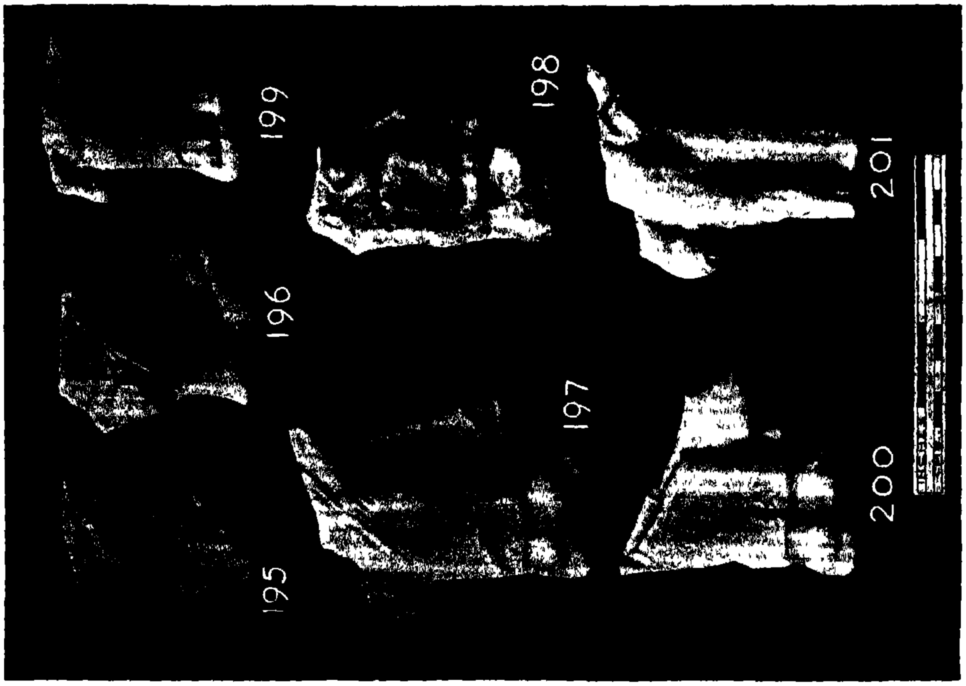
[1] *Ekaṁ muktāguṇam = iva bhuvaḥ sthūla-madhyendranīlam, Meghadūta*, I, 46.



B. *Type 17, mother-and-child figures*



A. *Type 16, female figures of the Gupta period*



B. *Type 18, Sub-type (ii), female worshippers*



A. *Type 18, Sub-type (i), male worshippers*

heads are preserved, as in no. 183, exhibiting the prevailing styles of hair-dressing. The stratigraphical evidence forth coming permits the type to be assigned to the period covered by Stratum III.

The figures may be classified in the following Sub-types:

(i) Woman with a suckling babe (*kshīradhātrī*).

(ii) Woman with a babe in her arms (*aṅkadhātrī*).

(iii) Woman with a child in the left arm and a ball or rattle in the suspended right hand (*krīḍādhātrī*).

References in the *Divyāvadāna* and other works of Sanskrit Buddhist literature show that several classes of female nurses were employed to attend on royal princes and scions of the nobility. 'For the child Chandraprabha four kinds of nurses were engaged, *aṅkadhātrī*, *maladhātrī*, *stanadhātrī*, *krīḍāpanikādhātrī*. The *aṅkadhātrī* was so called as she carried the child in her arms. The one who bathed the child and washed the linen was called *maladhātrī*. The *stanadhātrī* or *kshīradhātrī* was so called from feeding the child with milk from her breast. And lastly the *krīḍāpanikādhātrī* was one who entertained the young and grown up children with different kinds of play-things and toys.'[1] These types of female attendants for children are also recorded in early Jain literature.[2] There is no doubt that the repertoire of clay figurines assembled in shops and market-places in ancient India represented different types of men and women existing in various walks of life, and incidentally indicates a lively popular appreciation of works of art at the period. It seems as if the skilful modellers of the Gupta age presented in clay a typological inventory of contemporary society for the delectation of an appreciative public.

The specimens of each Sub-type from Ahichchatrā are given below.

Sub-type (i). Kshīradhātrī

181. Woman suckling baby (3·5"). The child in standing posture is feeding itself by drawing the nipple of the left breast to its mouth. Its left hand touches the right breast of the mother. The right arm of the woman is rendered free from the body from armpit to hip. Portion above neck and below thighs missing.

No. 8673, ACIII, KX/F1g, −50′; St. IV*b* : about third century A.D. It is a stylistic anachronism and the figure—an instance of a later specimen found in an earlier level—apparently came from a disturbed level.

182. Woman (1·8") suckling child at her left breast, pose of the baby as above.

No. 8455, ACIII, KIX/E5d, −43′; St. III*b* : A.D. 550–650.

Sub-type (ii). Aṅkadhātrī

183. Woman holding child in left flexed arm (4·5"), the child touching her breast with left hand. Trefoil hair beautified by a crest-jewel. Child's hair also arranged in trefoil style. Woman's right ear has extended lobe (*pralamba-karṇa-pāśikā*) and a round ring in left ear. An excellent specimen with bold relief conceived in the best traditions of Gupta art. Pink clay with traces of red colour all over the surface. Right arm made free from the bust by paring of clay. Suspension-hole in crest.

No. 3991, ACIV, MIX/S5e, −45′.

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[1] *Divyāvadāna*, text, Cowell, XXXII, 475; also I, 3 and III, 58 where the *stanadhātrī* is called *kshīradhātrī*. See also *Vinayavastu*, 'Gilgit Sanskrit Manuscripts', describing the child-birth celebration (*jātimaha*) of a male child and referring to the four kinds of nurses as *aṅkadhātrī*, *kshīradhātrī*, *maladhātrī* and *krīḍanikādhātrī*, *Indian Historical Quarterly*, XIV (1938), 413.

[2] *Ardha-Māgadhī Dictionary* by Ratna Chandra, II, 577. The *krīḍāpanikādhātrī* is here called *khelāvaṇadhāī*.

(*a*) Bust of woman (2·2") holding child as above. Fine buff-coloured clay.
No. 10221, ACIV, MIX/S5d, –44′.

(*b*) Woman (1·8") holding child in arms, as above. Marks of the use of scraper on the back.
No. 3700, ACIII, KX/A7j, –43′.

(*c*) Woman (2") holding baby in the same pose as above.
No. 4107, ACIII, KIX/E10j, –40′; St. I, but stylistically earlier.

Sub-type (iii). Krīḍādhātrī

184. Woman (2·2") holding child in left arm; her right arm, suspended, held a round ball; round ring in right ear, left lobe extended; bodice over breasts; skirts fastened at waist.

No. 1416, ACIII, KX/F7e, –43′; St. III*a*.

(*a*) Woman (2·7") with child in left arm; right arm holding a ball, now broken.
No. 6850, ACIII, KX/F2b, –45′; St. III*b*: A.D. 550–650.

(*b*) Woman (2·2") holding child in right arm and ball in suspended right hand. Flat modelling suggests a later date (perhaps ninth century).

185. Woman (1·5") holding child in right arm and a ball in doubled right arm near breast.

No. 4396, ACIII, KX/A2e, –41′; St. II: A.D. 750–850.

186. Woman (2·6") holding child in left arm and ball in suspended right hand.

No. 9044, ACVII, GV/C4e, –37′.

(*a*) Woman (2·5") holding child and ball as above.
No. 9150, ACVII, GV/C9f, –37½′.

187. Woman holding child in left arm; only the child's hand touching her breast is now preserved. She holds a rattle in her doubled right hand near right breast.

No. 9152, ACVII, GV/C9f, –37½′.

TYPE 18. WORSHIPPERS

This type comprises both male and female figures with one common feature, namely, the pose of the two arms, the left akimbo (*kaṭivinyasta-vāma-pāṇi*, Bāṇa), and the right hanging by the side (*latā-hasta*), holding a round object which may be identified as the fruit of the *bījapūraka* (*Citrus medica*) tree. Kālidāsa makes a reference in the *Mālavikāgnimitra* to a rule of etiquette that visitors waiting on persons of high rank did not go empty-handed, but with some present. The revered lady Parivrājikā directs her attendant to get a citron fruit from the king's pleasure-garden with which as a mark of honour she would like to wait on the Queen.[1] The type of male and female worshippers (*upāsaka-upāsikā*) seems to have been fairly common, as shown by the presence of about fifty figures amongst the terracottas of Ahichchhatrā.

A special class under male worshippers is that representing foot-soldiers or palace-attendants, distinguished by their dress which consists of a knee-length coat (*kañchuka*)

[1] *Sakhi bhavatī ājñāpayati ariktapāṇinā asmādṛisa-janena tatrabhavatī devī drashṭavyā. Tad bījapūrakeṇa śuśrūshitum = ichchhāmi, Mālavikagnimitra*, III, 'Friend, Her Ladyship directs that persons like her should not wait upon the Queen with empty hands. She therefore intends to honour her with a citron fruit.'

and a short dagger inserted in the belt on the proper right side. Bāṇa makes special reference to this feature in his description of uniformed foot-soldiers wearing short tunics, with a dagger secured in the broad belt passing twice round their body.[1] The figures are tall and well-built, having long legs and an erect posture. In two male specimens we find a baton or staff (*yashṭi*) held in the right or left hand (cf. nos. 189, 192, 193) which also is mentioned as the distinctive symbol of palace-attendants.

Amongst the female figures also occurs a special Sub-type distinguished by a plain petticoat without folds on the lower body and a scarf (*uttarāsaṅga*) passing over the breast and on the left shoulder. This agrees with I Tsing's account of the dress of female nuns, whom the clay figurines seem to represent. He calls the lower dress *kusūlaka* from the similarity of its form to a cylindrical granary (*kusūla*), an apt term to describe the stiff skirt on these figures. He also adds that the nuns did not conceal their busts under a bodice, as confirmed by the uncovered breast on these specimens.

The stratigraphical evidence of specimens from ACIII shows that both the male and the female figures of this class belong to Stratum III*a* and thus to the period A.D. 650–750.

Sub-type (*i*). *Male figurines*

188. Standing male figure (6·3″) of tall stature (*prāṁśu*, *Harshacharita*, p. 61) holding a round object in right hand, with left placed on thigh. He wears a close-fitting coat (*kañchuka*) falling to the knees, from which was derived the name *kañchukī*. A double belt fastened round the waist shows a frontal knot with two loose ends falling on either side. In the right side of the belt is a short sheathed dagger for which several names, such as *kartarī*, *chhurikā*, *asiputrikā* and *khaḍgadhenukā*, are recorded by Bāṇa. In comparison with the broad chest and hips, the waist is much too slender, a feature especially noted in the Pratīhārī type.[2] Below the double cloth-belt (*dviguṇa-paṭṭa-paṭṭikā*) is a broad band tied across from the right hip to the left thigh to serve as a strap for the sword suspended on the left.[3] In the available specimens the relevant projecting portion showing the sword is now missing. Between the legs is a tapering slit made by removing the clay from the knees to the ankles. Traces of red paint still visible.

No. 9423, ACVII, HV/J2a, –42′.

189. Standing male figure (4·2″) wearing a *kañchuka*, a short dagger and a double flat band as in no. 188. The right hand holds the end of a stick or baton, similar to that in no. 192 below. This is in agreement with Bāṇa's description of the royal door-keeper styled both *pratīhārī* and *dauvārika*: 'Grasping in his left hand his sword, its handle rough with the pearls which thickly studded it, and in his right hand his burnished golden staff of office' (*śātakaumbhī vetrayashṭi*).[4]

No. 6708, ACIII, KIX/E10k, –45′; St. III*b*: A.D. 550–650. It seems more nearly to approximate to the lower limit.

190. Fragmentary torso (2·6″) of a standing male figure with a tunic and with a dagger suspended from the belt on right side.

No. 786, ACIV, MIX/N5b, –40′.

191. Torso (2·3″) of a male figure similar to no. 190 with a dagger and a tunic. Right hand suspended but without fruit.

No. 9022, ACVIII, GIV/E6c.

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[1] *Dviguṇapaṭṭa-paṭṭikā-gāḍha-granthi-grathitāsidhenunā*, *Harshacharita*, I, pp. 21 and 61.

[2] *Māṇikyapadakabandha-śastrabandha-kṛiśāvalagna*, 'slender waist bound by a tight girdle having a decorative clasp of ruby', *Harshacharita*, p. 61.

[3] Cf. *pārśva-baddhena khaḍgena pratīhāras = tu daṇḍavān*, 'the chamberlain should have a sword tucked on the side and hold a staff', *Vishṇudharmottara Purāṇa*, III, xlii, 41.

[4] *Harshacharita*, p. 62.

192. Male figure (2·2") holding a staff of office (*vetra-yashṭi*) in right hand as in no. 189 above, and wearing a round collared tunic. Loop of a sash near right thigh. Flexed arms detached from the bust by removing the clay.

No. 3701, ACIII, KX/A9j, –42′; St. IIIa: A.D. 650–750.

193. Torso (1·9") similar to no. 192, but with the right hand suspended and the left holding a staff.

No. 432, ACIII, –43′.

(*a*) Torso (3") of a standing male figure wearing tunic, with suspended right hand holding fruit and left arm akimbo. This general form occurs in all the remaining figures of this type.

No. 3639, ACIII, KX/A4j, –44′; St. IIIa.

194. Torso (2·5") of a standing male figure wearing short knickers; left arm akimbo and right one suspended by the side, but without any weapon.

No. 3981, ACIV, MX/S3g, –44′ 6″.

Sub-type (ii). Female (Bhikshuṇī) figurines

The general style is that of a female figure in standing posture with suspended right hand holding a fruit and left placed on hip. In none of the figures of this group, either male or female, is the head now preserved. The upper scarf (*uttarāsaṅga*) covers the body and the left breast diagonally and is continued on the left shoulder, resembling the style of the *ekāṁsika chīvara* (nos. 195, 196, 197). The petticoat is flounced at the lower end, giving it a cylindrical appearance (cf. the *kusūlaka* described above, p. 149). The feet, preserved, rest awkwardly on a slight base-plate.

195. Female figure of nun (2") with right hand in *latāhasta* pose and left on hip. Upper scarf covering left breast and shoulder.

No. 9346, ACVII, GV/D10a.

196. Female figure (2"), similar to above with full round breasts. Right hand missing.

No. 6470, ACIII, KIX/K10h, –46′; St. IIIa: A.D. 650–750.

197. Female figure (3·1"), similar to no. 195, only the portion below the waist being preserved. From a study of these three figures it appears that one end of the upper scarf thrown over the left shoulder passes on the back and hangs on the left side below the left fore-arm parallel to the leg.

No. 6052, ACII, JIX/R6f, –47′.

198. Lower fragment (3") of a similar female figure. One end of the upper scarf is spread out in front over the petticoat.

No. 445, ACIII, KX/F5g, –40½′.

(*a*) Standing female figure (3·3") with hands and drapery as above.

No. 4431, ACIII, KX/A1e, –42′; St. IIIa.

(*b*) Female figure (3") similar to above.

No. 6375, ACIII, KX/A1j, –44′; St. IIIa.

(*c*) Female figure (2") wearing petticoat, with hands as above.

No. 8127, ACIII, KIX/P7e, –48½′.

199. Lower half portion (2·25") of a female figure with hands in the usual pose.

No. 10218, ACIV, MIX/S6f.

200. Female figure wearing foldless skirts as above, but with the left end of the upper scarf falling prominently on her left side.

No. 3643, ACIII, KX/A4j, −44′.

201. Female figure with the pose of the two hands as above, wearing a petticoat and a scarf.

No. 9261, ACVII, GV/D8b, −39½′.

Type 19. Nude female figures

A dozen clay figurines show a nude woman either moving with bent body in a dishevelled and disconsolate posture, or simply standing, with the right hand drawn parallel to the body and left akimbo.

Nudity is contrary to the conventions of Gupta art. The present type, however, finds its explanation in terms of a distinct iconographic formula. On the basis of literary evidence it may be identified with the miserable naked woman symbolizing adversity. She is spoken of as roaming in village-streets as a portent of coming misfortune. Bāṇa refers to her by the name of Koṭavī: 'Shaking her fore-finger as if to count the dead, a naked woman wandered all day long in the parks'.[1] Hemachandra (twelfth century) explains Koṭavī as an undraped woman moving about with dishevelled hair and oppressed with deep shame.[2] Keśava, to whom we are indebted for further light on her proper place in the pantheon, enumerates Koṭavī as one of the numerous forms of Ambikā.[3] In fact, as Vincent Smith has observed, Koṭavī was an ancient South Indian goddess assimilated in the fold of the Brahmanical deities under one of the forms of Durgā.[4] The rôle assigned to her, however, was inauspicious.

Her admission to the Hindu pantheon seems to have been accomplished about the early Gupta period, at any rate some time before Bāṇabhaṭṭa, whose reference to her gives the impression that her form and functions were well understood in his time. The terracottas of the Koṭavī type seem to have served an apotropaic purpose, apparently used as offerings to ward off coming evil and ill-luck.

Out of a dozen specimens, all characterized by their emphatic nudity, four were unearthed in ACIII in Strata III*b* and III*c*, indicating a period between *c.* 450 and 650 A.D.

202. Nude woman (4·75") standing with body turned towards her right, the left leg straight, the right leg bent at knee and crossed behind the left. Right arm flexed, left missing. Produced from a single rough mould in coarse clay.

No. 6879, ACIII, KIX/E6h, −44′; St. III*b*: A.D. 550–650.

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[1] *Harshacharita*, Cowell's translation, p. 195; text, p. 201, *ganayantīva gatāyushas = tarjana-taralayā tarjanyā divasam = āṭa vāṭakeshu Koṭavī.*

[2] *Abhidhānachintāmaṇi*, text III, 93, '*nagnā tu Koṭavī*'; commentary, *nagnā vivastrā yoshid muktakeśīty = āgamaḥ, koṭena lajjāvaśād yāti Koṭavī.*

[3] *Kalpadrukosha* (A.D. 1660), p. 398, verse 127.

[4] 'The most powerful demoness of the southern races, Koṭṭavai, the "Victorious", has now taken her place in the Hindu pantheon as Umā or Durgā, the consort of Śiva.' V. A. Smith, *The Early History of India*, 3rd ed. (Oxford, 1914), p. 457.

203. Nude woman (3") standing as above with fore-part of the body slightly bent to her right. The position of the hands is distinct in this specimen showing the right arm flexed and hand placed on the abdomen, and left akimbo. Three pendent tassels about her legs similar to those in no. 202.

No. 8115, ACIII, KX/F2k, –47′; St. III*c*: A.D. 450–550.

(*a*) Torso (2·5") of a nude woman standing with bust inclined to left.

No. 6442, ACIII, KIX/K9g, –46′; St. III*b*.

204. Torso (3·5") of a nude woman standing with body inclined a little to her left. Both arms are bent at elbow and thrown outwards.

No. 1108, ACXV, RVII/Y9j, –49½′.

205. Legs of a similar figure striding to her right.

No. 11149, ACXV, RVII/X4e, –50′.

Specimen nos. 202–205 are of brick-like hardness; they are from single moulds and are different in style from the following ones:—

(*a*) Torso of a nude female figure (2·5") standing in a frontal pose.

No. 10060, ACI.

(*b*) Fragmentary torso of a similar figure, but inclined slightly to the right. The left arm hangs parallel to the body. Cast in a double mould.

No. 11057, ACXV, RVII/X6f, –50′.

206. Torso of a nude female figure, with the left arm hanging by the side, the right arm bent at elbow and stretched outwards; obese belly, but undeveloped breasts. Cast in a double mould.

No. 11509/11, ACI, Locus 85, –50′.

207. Torso (2") of a nude standing woman with the right hand suspended by the side and the left placed on the thigh. Pressed from a single mould in finer clay.

No. 6778, ACIII, KX/A1g, –45′; St. III*b*.

(*a*) Torso as above (2·5").

No. 9202, ACVII, GV/C9k, –39½′.

GROUP VII. RIDERS

TYPE 20. HORSE- AND ELEPHANT-RIDERS (AŚVAPĀLA AND HASTIPAKA TYPE)

(STRATUM III*b*: A.D. 550–650)

The Rider-type consists of (i) riders on horse-back (*aśvapāla*), and (ii) riders on elephants (*hastipaka*). Stylistically the two are linked together, but the former predominates, of the latter there being only three specimens out of twenty-six. Each figure is produced from a double mould by pressing the two moulds on to a solid core of clay and then paring the surplus clay with a sharp instrument, which leaves a mark of cutting along the entire joint. Only in one case (no. 208), the figure was made hollow by pressing each half separately in its respective mould and then joining the two parts together.

The most remarkable thing about these figures is the slab-like body of the rider, with the minimum of detail. There is a close affinity in style between this type and the figures

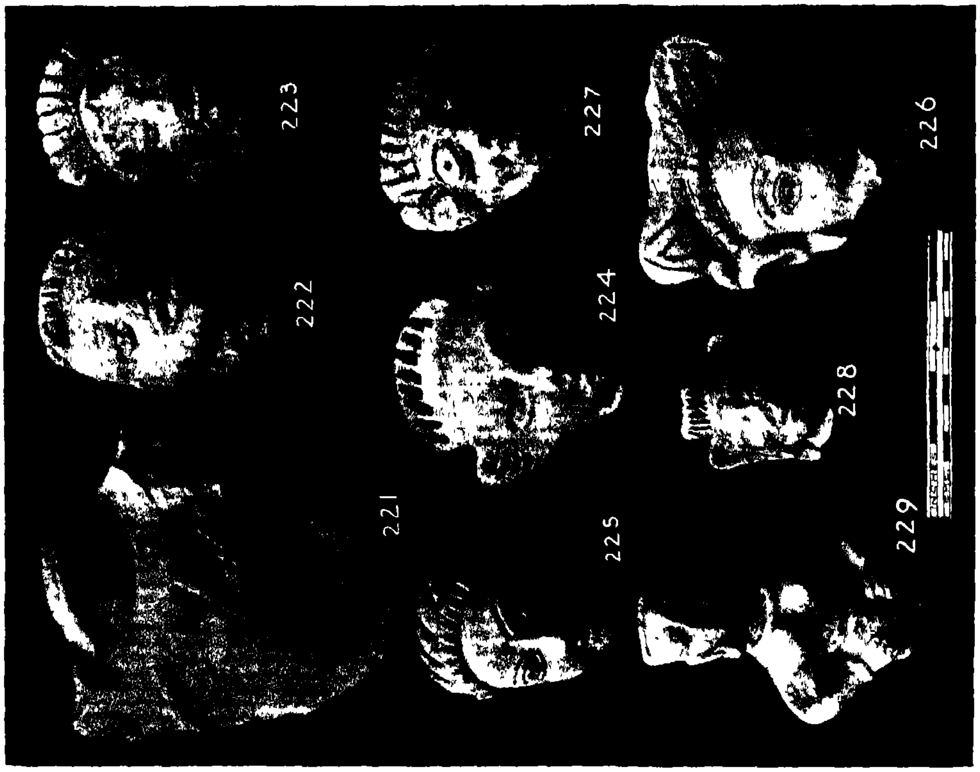
PLATE LIII



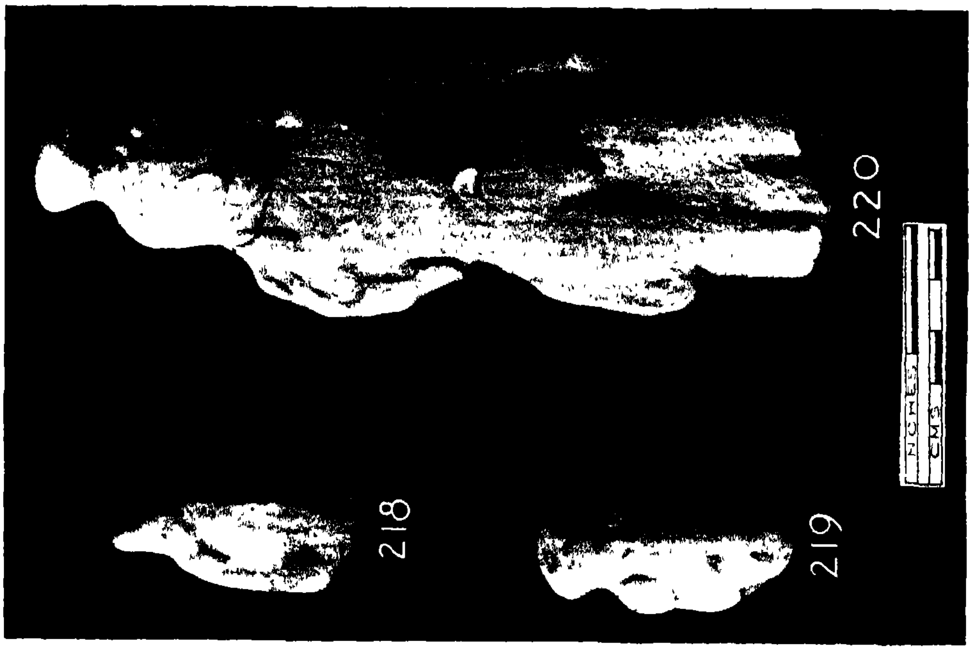
B. *Type 20, horse- and elephant-riders*



A. *Type 19, nude female figures*



B *Type 22, figures with foreign ethnic features*



A. *Type 21, figures with foreign head-dress*

of riders from Seleucia.[1] Another foreign feature of this type is the conical skull-cap tilting backwards and worn on a receding forehead. Other details of costume are absent. 'The horse-rider should wear the Northern dress', this statement of the *Vishṇudharmottara*[2] can be verified at least in the case of the *kulah*-like cap on the head. Bāṇa refers to the *kulah* under the Sanskritized form of *khola* (*Harshacharita*, p. 207).

The horses generally are of light weight, slim and wiry, with the neck rising in a prominent curve in front of the rider. This tallies with the description of Bāṇabhaṭṭa comparing a horse's neck to the bent upper portion of a sacrificial post[3] (see no. 210). This type may be identified with the Kāmboja horse, a sure-footed wiry animal, referred to by Bāṇa (*Harshacharita*, p. 62). Kāmboja was the ancient Pamir country coinciding with the headwaters of the Oxus. This horse can be recognized in several paintings at Ajaṇṭā[4], and seems to have been introduced on a large scale in India by the Śakas.[5]

Only in one example (no. 216), which is different from all the rest, do we find the horse entirely modelled by hand showing a large type of animal with broad and heavy muscle. It seems to be a type made familiar by the Hūṇas and, at any rate, is reminiscent of the enormous Chinese horses known in the T'ang period. Further evidence from excavation is required to throw definite light on its origin and the time of its first introduction into India. Owing to their large size, steeds of this type came in for special mention by Bāṇabhaṭṭa as *mahāvājī* and *bṛihadaśva* (*Harshacharita*, pp. 23 and 186).

The details of the horses' trappings are also preserved in some specimens. They consist of the martingale (*talasāraka*, according to Bāṇa; cf. no. 214); flywhisk held erect between the ears (on the same specimen), reins and nose-piece. In one specimen (no. 215), we see the horse cantering and the rider seated like a jockey with his hands free and legs turned backwards.

The stratigraphical evidence of the finds from site ACIII allows us to date this type to the Gupta epoch. Of the five specimens, three come from Stratum III*b* (*c.* 550–650 A.D.). The modelled figure of the large horse was found at −42′ level in Stratum III*a* (650–750 A.D.), showing that the latter was subsequent to the lightweight horses of the Iranian type.

Sub-type (i). Horse-riders (aśvapāla)

208. Male rider (2·3″) showing only the left half, hollow at the back as each half was pressed separately in the mould and then joined together. Close-fitting *kulah* cap with a round knobbed top; round ear-ring in left ear. Receding fore-head, long nose, short-pointed chin. The whole body is slab-like with the arms forming part of the bust.

No. 4304, ACIII, KIX/K6j, −44′; St. III*b*: A.D. 550–660.

209. Male rider (1·8″) with a thin slab-like solid body, knobbed skull-cap and facial features similar to the above. Short pendants in ears instead of round *kuṇḍala*. Broad mark of the paring of surplus clay on the front side of the body.

No. 4460, ACIII, KX/A2f, −42½′; St. III*b*.

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1 Van Ingen, op. cit., no. 442*a*.

2 *Udīchyaveshās = tu kartavyās = turagāṇāṁ tu sādinaḥ*, III, xlii, 38.

3 *Yūpānupūrvīvakrāyatodagra-grīva*, *Harshacharita*, text, p. 62.

4 Lady Herringham, *Ajantā*, pl. XLII; the horse-riders there also wear pointed caps.

5 See the representation of horses with riders on the belt of the image of Chashṭana from Mathurā, *An. Rep. Arch. Surv. Ind.*, 1911-12, pl. LV, 7

210. Male rider on horseback (2·5″). The horse stands in profile with its long raised neck curving in front. The legs of the horse are joined solidly to each other and shaped like a flattened roll of clay. Cast from a double mould, with marks of joining along the whole central line of the figure.

No. 1098, ACIII, KX/F4d, −44½′; St. III*b*.

211. Male rider (1·5″) with slab-like body and an exaggerated long nose, which is of double breadth due to awry joining of the seam of the two moulds.

No. 9090, ACVII, −37½′.

212. Horse's head (1·2″), being part of a male rider on horseback. Pricked ears and erect flywhisk.

No. 9365, ACVII, −33′.

213. Male rider on horseback, complete with the feet of the horse resting on the base-plate.

No. 6878, ACIII, KIX/K10j, −46′.

214. Male rider on horseback similar to above, with an erect flywhisk between the ears and the martingale (*talasāraka*) [1] passing from the mouth of the animal to the breast-band.

No. 838, ACI.

215. Male rider on horseback showing the horse cantering and the rider seated on the back of the animal like a jockey with legs turned backwards.

No. 9066, ACVII, −37′.

216. Horse with a heavy body, broad neck and large muscles. Long loosely falling manes are indicated by incised lines on both sides of the neck. Double reins on each side are applied and grooved. Two forked spikes on the nose project from the upper end of the bit. This appears to be the kind of rough bridle (*khara-khalīna*) which, as Bāṇa says, had spiked ends on the bit pressing against the long muzzle.[2] He also does not fail to notice that this kind of hard bit furnished with pointed ends was being used for steeds of larger size (*mahāvājī*),[3] probably a reference to the new type of horses introduced by the Hūṇas into India.

No. 6315, ACIII, −42′; St. III*a*: A.D. 650–750.

Sub-type (ii). Elephant-rider (hastipaka)

217. Male rider (2″) on the back of a tusked elephant. Style similar to that of the horse-rider. Made from a double mould.

No. 1247, ACIII, KX/F5b, −39′; St. I-II.

(*a*) Male rider on elephant.

No. 9048, ACVII, −37½′.

(*b*) There is also a third specimen with an unverified number. Although the material is limited to a few specimens only, it appears that the elephant-rider type was later in sequence than the horse-rider type.

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[1] *Harshacharita*, p. 205.

[2] *Dīrgha-ghrāṇa-līna-lālikā*, *Harshacharita*, text, I, p. 23; Cowell's translation, p. 18.

[3] *Harshacharita*, p. 23. Another reference to a rider on the back of an enormous horse is found as *bṛihadaśvavāra* (*Harshacharita*, p. 186).

GROUP VIII: FOREIGN TYPES

TYPE 21. FIGURES WEARING FOREIGN HEAD-DRESS

There are three heads from Ahichchhatrā wearing a distinctive head-dress of a foreign style.

218. One of them, apparently a soldier's head, wears a kyrbasia, the two flappets of which are shown on the cheeks. It may be compared with the head of a soldier from Seleucia illustrated by van Ingen.[1]

219-220. The other two heads are wearing a kalathos-like head-dress. That from ACI is part of a complete standing male figure with arms suspended by the side. The long raised head-dress is secured by a string of pearls in both. These two heads with kalathos may be compared with the Seleucia figure no. 1081*c* (pl. LXIII, fig. 454) and no. 1189*b* (pl. LXVI, fig. 484). The faces are of the oval type resembling those of the Roman figurines.

No. 591, ACI, $-40\frac{1}{2}'$; no. 11253, ACXV.

TYPE 22. FIGURES WITH FOREIGN ETHNIC FEATURES (STRATA III*c*–III*a*: A.D. 450–750)

An important group of terracottas from Ahichchhatrā, mostly heads, is distinguished by one general characteristic, namely that the faces betray foreign ethnic types. Their non-Indian character is at once apparent, although it is not yet possible to determine special sub-types amongst the group itself. During the first six centuries of the Christian era a succession of foreign races entered North India, amongst whom the Parthians, the Śakas, the Kushāṇas, the Muruṇḍas, the Kedāra-Kushāṇas and the White Hūṇas or Hephthalites, and possibly also the Sāsānians, were masters of settled empires and had left their stamp on the culture and population of the country. Evidence shows that the Indian modellers working through the medium of clay reacted to the presence of these foreign types in their midst and preserved their salient features in the figurines now available.

Of about fifty figures, only half a dozen are from ACIII site with detailed record of level and stratum. On classifying this material according to strata we find that it ranges roughly from Stratum III*c* to III*a*, i.e. from about A.D. 450 to 750. But their precise identification and the fixing of their relative sequence are not yet possible owing to the paucity of reliable material. Pending the determining of the occupation-levels synchronizing with the Kushāṇas and the Hūṇas in India, this important group of foreign heads from Ahichchhatrā can only be classified tentatively. The limited evidence at our disposal tends to show that the heads with goat-like eyes (Sub-type iii) represent the Sāsānian Persians, the heads with round protruding eyes (Sub-type v) the Kedāra-Kushāṇas, and the large heads with hollow cylindrical bodies (Sub-type vi) the Hephthalite Hūṇas. Rājghāṭ, Mathurā, Ghosī, Bhīṭā and other sites have also yielded terracotta figurines of foreigners, but on all these sites the evidence of stratification is defective, and we are not yet in a position to focus adequate attention on this important question of Indian history.

Sub-type (i). Profile faces to right

221. Fragmentary face (5·25") of life-size male figure with curly moustaches and eyes showing pupils. The face is turned to the right. The coins of the Kedāra-Kushāṇas show that the bust of the king facing right was a convention followed by the feudatories of the Sāsānian empire, whereas the bust of the king facing front was

[1] *Figurines from Seleucia*, pl. LXVII, fig. 492. See also fig. 462 for a female head wearing the same kind of head-dress.

a privilege of the Sāsānian kings only.[1] The present example agrees with this tradition, and probably belongs to the period of the Kedāra-Kushāṇas in India. It was found in Stratum III*c* and may be assigned to the middle of the fifth century.

No. 10801, ACIII, KIX/K1c, −47′.

(*a*) Fragment of male head facing right showing incised eyebrows and diamond-shaped eyes. Modelled by hand.

No. 6130, ACV, QVIII/P4g, −66½′.

Sub-type (ii). Heads with a projecting broad diadem or turban

222. Male head (3·5″) with a projecting turban-roll at the back of the forehead, marked by incised grooves to indicate twisted folds. Brows and eyes marked by incised lines.

No. 8193, ACIII, KIX/K8b, −46′; St. III*b*: A.D. 550–650.

223. Head (3″) with a much more prominent turban-roll marked by incised vertical grooves. Round face. From a single mould.

No. 9078, ACVII, GV/C7c, −38′.

224. Head (3″) with a projecting turban-roll with deep incised marks.

No. 3028, ACV.

225. Head (2·5″) of a female figure with a chaplet fringing the base of the hair.

No. 6251, ACV, QVIII/Z8b, −56′.

226. Female head (3·5″) with a bicornate rectangular head-dress and broad slit ears.

No. 9392, ACVII, HV/H10e.

Sub-type (iii). Heads with goat-like eyes

This Sub-type is characterized by conspicuously raised eye-balls giving the effect of applied eyes, lenticular in form. It seems to represent the Sāsānian Persians, i.e. the Pārasīkas well-known during the Gupta and post-Gupta periods and engaged in frequent intercourse with India. The face in these figurines almost illustrates the description of the Persians by Ammianus Marcellinus: 'The Persians were almost all slender with dark or livid complexion, hard goat-like eyes, arched eye-brows meeting in the middle, carefully tended beard and long frizzy hair.'[2]

227. Female head (2·5″) with projecting roll of hair at the back of forehead, prominent goat-like eyes with pierced holes for eyeballs and long pointed chin.

No. 9198, ACVII, GV/S9j, −38′.

228. Female head (2″) with rectangular head-dress arranged at the back of the head a top-knot of hair projecting on the head, round dot on forehead, lenticular eyes, and squat rectangular face. Suspension-hole in the crest.

No. 8004, ACIV, MIX/S9g, −42¾′.

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[1] *A New History of the Indian People*, VI, pp. 21-22.

[2] Clément Huart, *Ancient Persia and Iranian Civilization* (London, 1927), p. 166; Ammianus Marcellinus, XXXIII, 6, 75–84.

229. Standing female figure (4·5″) with face and eyes similar to no. 228, elongated ears with a double ring in left ear, arms flexed and placed on the hips in the pose of a dancer.

No. 934, ACIV, MIX/H6k, –41′.

230. Head (3″) with lenticular eyes and a raised circular dot on the forehead. In all examples of this Sub-type and those of no. (ii), the figures were first pressed out of a single mould and then the arched eyebrows, eyelids, hair, etc., were marked in the form of incised grooves.

No. 9401, ACVII, KX/L1b.

231. Female head with projecting roll of hair adorned by a garland, a dot between the eyebrows and lenticular eyes. A tenon below.

No. 9373, ACVII, GV/E1d, –40′.

232. Woman's head (4″) with prominent lenticular eyes, hair arranged in projecting locks adorned by a crest-jewel and a garland on the forehead. Prominent appendages on both sides giving a rectangular framing to the face; conspicuous cheek-bones meeting in a double heavy chin. Baked to brick-like hardness.

No. 11317; a surface-find.

233. Female head (2″) with a very prominent nose and cheek-bones as in no. 232.

No. 6721, ACIII, KIX/K10a, –44′; St. III*a*: 650–750 A.D.

234. Female head (5·5″) with broad projecting hair above head. A long tenon below.

No. 3142, ACV, QVIII/Z7b, –55′.

235. Female head (1·5″) showing aquiline nose, a dot on the forehead, lenticular eyes and projecting cheek-bones meeting in a pointed chin, which makes the lower portion of the face look almost triangular. The hair and appendages round the head are now detached.

No. 6722, ACIII, KIX/K7d, –46′; St. III*a*.

Sub-type (iv). Rolled heads in brick-like hardness

236. Male head (4·25″) with an elaborate head-dress consisting of a frontal globe placed between two crossing rolls of turban. A high cylindrical roll of clay forms the background of the head. The features of the face as well as the high cylindrical form of the head-dress show affinities with some of the heads on the coins of the Hūṇas.[1]

No. 8375, ACIII, KIX/E8h, –46½′; St. III*c*: A.D. 450–550.

237. Male head (3·25″) wearing a high crown with a broad face and chin, and lips set in a round depression formed by the cheek muscles.

ACV, surface-find.

238. Head (3·5″) wearing a cylindrical *kulah* cap, embroidered in front by a double row of punched circlets. Tenon below.

No. 10698, ACII, KVIII/D10b, –48′.

239. Terracotta female head with a dot between the arched eyebrows, long ears and full cheeks meeting in a double chin.

No. 3589, ACIII, KX/G9d, –35′.

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[1] Cf. A. Cunningham, *Coins of the Later Indo-Scythians*, pl. X, figs. 9–11.

240. Male figure (4") wearing a high head-dress with a globular knot in front similar to no. 236. Eyebrows indicated by small indentation marks; double collar on neck indicated by punched circlets as on no. 238; arms and bust crudely modelled as in the dwarf type.

No. 10622, ACII, R. 140, –42′.

Sub-type (v). Heads with round eyes

This is a small group marked either (*a*) with round eyes indicated by circular applied pellets and a short slit mouth, or (*b*) with protruding goggle eyes. Both these features are traceable in the faces of figures on the coins of the Kedāra-Kushāṇas, and possibly this type has reference to the peculiarities of the facial type of the later Kushāṇas who ruled in the fourth and fifth centuries A.D. in North-West India.

241. Female head (1·75") with eyes indicated by circular applied pellets, a forehead jewel with pricked surface, slit mouth, and hair arranged in two hanging strands forming a loop at the back of the head.

No. 11117, ACXV, RVII/Y3g, –49½′.

242. Female head with big round pupils, slit mouth, hair arranged in a projecting topknot, and elongated ears wearing flat grooved rings.

No. 9315, ACVII, GIV/E6c, –42′.

243. Female head (2·5") with projecting hair in vertical grooves continued at the back, a round dot on the forehead and eyes with protruding eyeballs.

No. 6170, ACV, QVIII/Z9c, –56′.

Sub-type (vi). Hollow cylindrical bodies

A limited number of figurines from Ahichchhatrā show a hollow cylindrical body with the tenon of a moulded head inserted into it. The workmanship is extremely crude. Most of the figures are from ACIII, Strata III*a-b*, indicating a period *c.* A.D. 550–750. As figures in this style have been found on other ancient sites also, it appears to be an established type representing some foreign element in the indigenous population. Stylistically the figures seem to be related to the figures of the Hephthalites represented on their coins in a similar round cylindrical style.[1] It is, however, necessary to confirm this from better-preserved specimens than are at present available in the Ahichchhatrā collection.

244. Torso of a female figure (6·5") with a cylindrical body, hollow inside, wearing a broad flat torque, a grooved ring in the ear, bodice and skirts (*choli* and *lañhgā*), a scarf thrown diagonally in front and on the back.

No. 8133, ACIII, KIX/K4e, –45′; St. III*a* : A.D. 650–750.

245. Head and bust (6") of a female figure with hollow tenoned head fixed in a round bust and hair falling in two locks on shoulders. Much damaged and worn surface. It is the only specimen with a head preserved in this group.

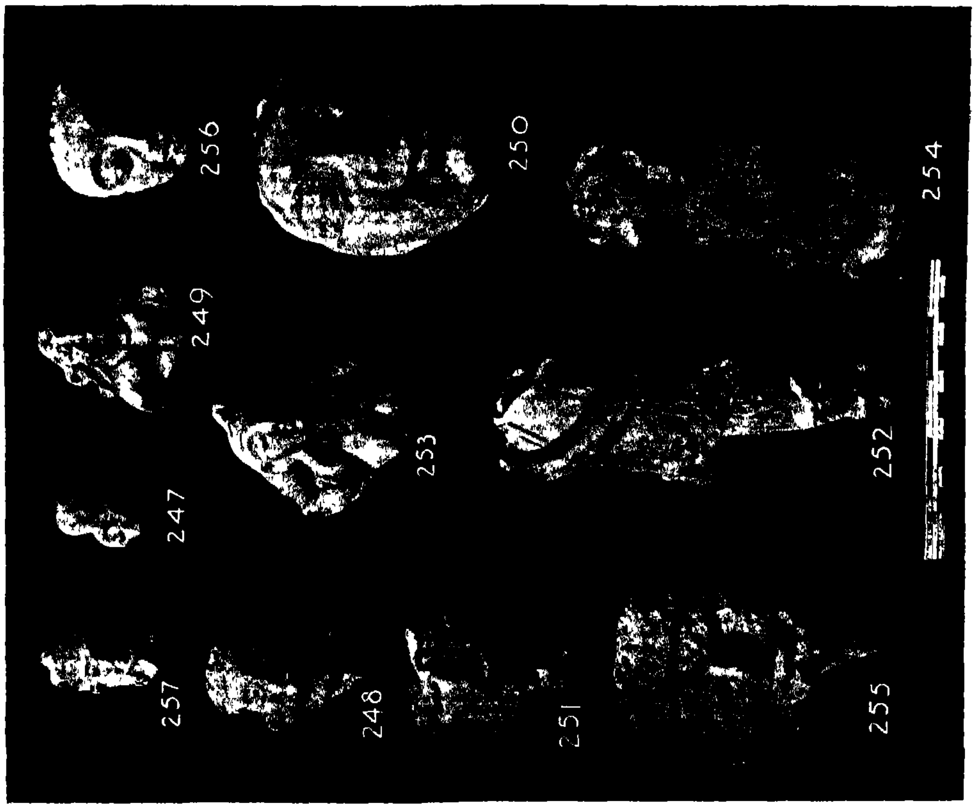
No. 6728, ACIII, KIX/E10j, –46′; St. III*b* : A.D. 550–660.

246. Female torso (5") with splayed conical bust, wearing a sleeved bodice.

No. 8666, ACIII, KIX/K10f, –48′; St. IV*a*: A.D. 250–350. It appears to be a stylistic anachronism in this Stratum, i.e. a case of a later figure intruding into an earlier level, which must have been disturbed.

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[1] Cf. Cunningham, op. cit., pl. VIII, figs. 8, 14 and 16.

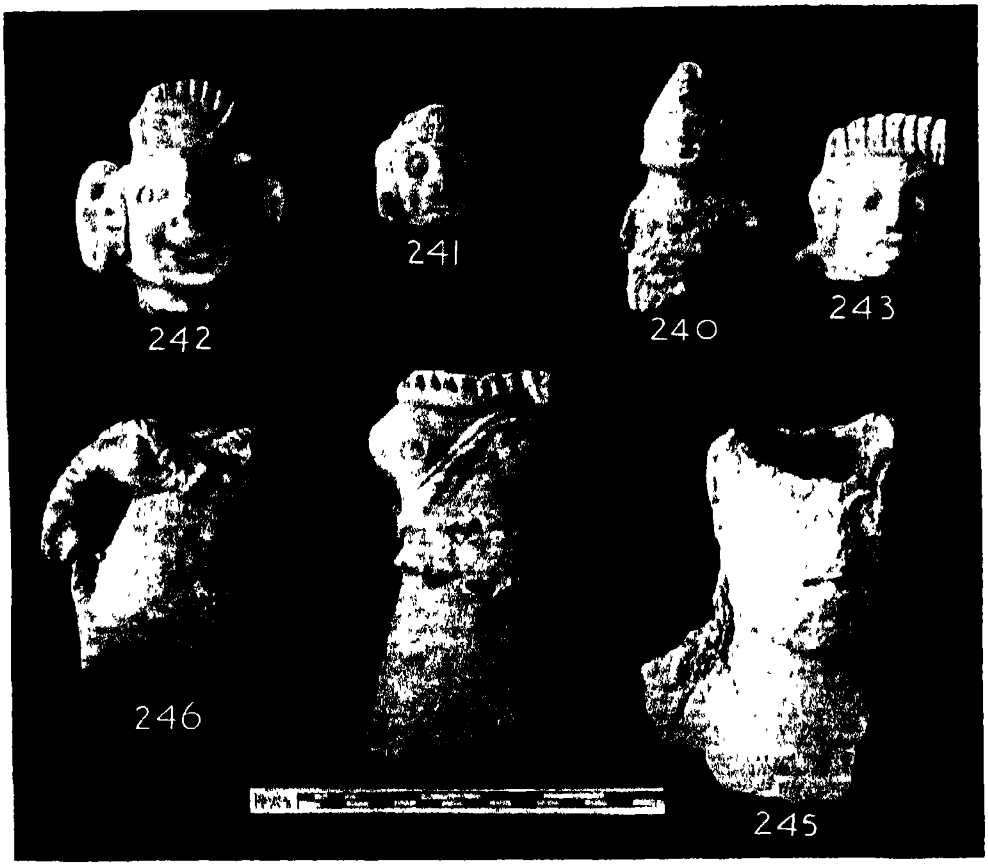


B. *Type 22, figures with foreign ethnic features*

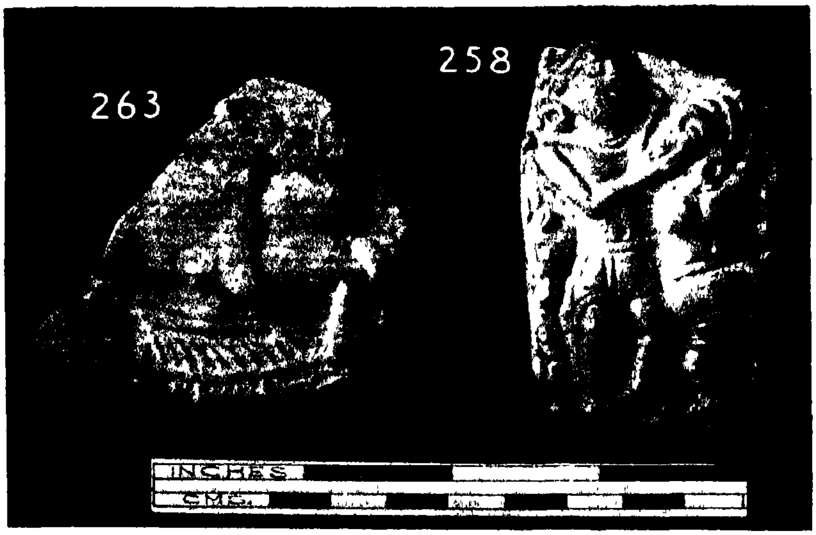


A. *Type 22, figures with foreign ethnic features*

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A. *Type 22, figures with foreign ethnic features.* (Central figure in lower row is No 244.)



B. *258, Type 23, Dampatī figure; 263, Type 25, plaque with Kinnara-mithuna*

(*a*) Fragmentary torso of a male figure (3·5″), wearing a necklace and a scarf.
No. 6373, ACIII, KX/A1j, −44′; St. III*a*.

(*b*) Similar to (*a*), but without scarf (2·5″).
No. 6776, ACIII, KIX/K8d, −46′; St. III*a*.

Sub-type (vii). Miscellaneous figures

247. Male head (1·5″) with long Pārsī nose in one plane with the receding forehead, wearing a high cap covering the nape.

No. 1409, ACIII, KX/F6g, −41′.

248. Male head (2·25″) wearing a round cap with squat rectangular face.

No. 6674, ACV, QVIII/P3j, −65′.

249. Head and bust (2·2″) of a female figure with incised diamond-eyes and hooked nose.

No. 9109, ACVII, GV/C9f, −37½′.

250. Prominent head (3·5″) with plump cheeks, double round chin and eyes without pupils.

No. 8434, ACIII, KIX/E9h, −47′; St. III*c*: A.D. 450–550.

251. Male head with tenon (3″) of a crudely modelled figure, having deep incised eyes. Face with rectangular outline and short chin.

No. 3514, ACIII.

252. Fragment (7·5″) showing the right leg of a male figure, wearing a striped tunic falling to the middle of the thighs, and trousers which have vertical folds up to the knees and then arched horizontal folds down to the shanks. This kind of lower dress may be identified with the *piṅgā* of Bāṇabhaṭṭa, explained as *jaṅghālā*, i.e. long trousers falling to the shanks, worn by kings moving in the train of Harsha.[1] A scarf is arranged in a thick round loop in front of the body. Coarse clay with profuse mixture of rice-husk.

No. 4406, ACIII, KX/A3j, −42′; St. III*a*: A.D. 650–750.

253. Young female figure with elaborate coiffure and ornaments. A long braid of hair falls on the left shoulder in a graceful serpentine sweep. The braid on the shoulder appears to have been a style in female coiffure; e.g., it was adopted by the heroine Kādambarī in her love-separation.[2] She wears many armlets and bangles on the right arm which placed behind the head, possibly an amorous gesture. A scarf passing just above the breasts leaves them bare.

No. 8096, ACIV, MIX/S3h, −44′.

254. Woman (6″) with moulded head inserted in a round cylindrical body, wearing half-sleeved *choli* and a crescent-shaped ornament round the neck. She has a hooked nose with squat rectangular face and short chin, slit mouth and a braid of hair falling at the back in a doubled pigtail.

No. 10100, ACI, Locus 87, −46′.

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[1] *Harshacharita*, VII, p. 207. Bāṇa refers to two kinds of trousers, full-length called *piṅgā* (explained as *jaṅghālā*), as in the present figure, and half-length or knickers called *satulā* explained as *ardha-jaṅghālā*), as in the Kinnara-mithuna plaque (no. 303).

[2] *Amsena veṇīm*, *Kādambarī*, text, p. 253.

(*a*) Female head with lenticular eyes, a wreath on head and pendants in ears.
No. 10861, ACIII, KX/A3f, −47½′; St. III*c*.

255. Male head (5″) wearing a wreath and a turban, and having a tenon below.
No. 10185, ACI, R. 112, −54½′.

256. Female head (2·5″) with protruding eyeballs, eyebrow marked by incised lines; hair combed backwards in raised strands.
No. 6227, ACV, QVIII/Z8b, −56′.

257. Head (2″) wearing a raised crown surmounted by a topknot. Its drawn-out face, heavy eyelids, pointed chin and the high head-dress covering half of the forehead show affinities with the classic Khmer art of Cambodia. Its discovery in Stratum I (ninth–eleventh centuries) points to the same period as its date.
No. 1419, ACIII, KX/F7g, −42′; St. I.

GROUP IX. MISCELLANEOUS FIGURES AND TYPES

TYPE 23. DAMPATI FIGURES

Dampatī plaques, which are a common feature of the terracottas from the early levels of the Śuṅga and Pañchāla periods (200 B.C.–A.D. 100), are comparatively rare in the Gupta and post-Gupta age, only two being found at Ahichchhatrā.

One is a small plaque (no. 258, ht. 2′ 5″) showing a man fondling a woman with his right hand on her chin. Typical Gupta features are the honeycomb style of hair on the man's head, round ear-rings in the ears of both, short striped loin-cloth (*jaṅghikā*) worn by the male figure, *ekāvalī* pearl necklace round the woman's neck, full breasts touching each other, and a beaded margin on the plaque. It comes from ACIII, KX/A8k, —40′, which places it in Stratum II (A.D. 750–850), but on grounds of style it might be a little earlier.

The other specimen (no. 259) is a brick with a round moulding on one of the narrow sides, which was used as part of a jamb. Its upper side bears a Dampatī figure in bold relief, the woman on the left being now partially damaged. The hair of the male figure is parted in the middle and then combed into locks on the two sides and falling on the shoulders. On the forehead is a double row of curls disposed in a big sweeping band from the right shoulder to the left.

The most distinctive feature of the decoration of the male figure is the long serpentine necklace, which, descending from the left shoulder, sweeps down to the knees and is held at the breast between the thumb and the index-finger of the right hand with palm facing outward. This conspicuous kind of necklace seems to have been a distinguishing feature of male ornamentation during the post-Gupta period and was known by the significant name of *śesha-hāra*, i.e. a necklace resembling the serpent Śesha, according to Bāṇabhaṭṭa.[1] This style of serpentine necklace also continued in the medieval period and finds mention in the *Naishadhacharita* of Śrīharsha (twelfth century) under the name of *duṇḍubhaka*, so called from its resembling in form a *duṇḍubha* snake.[2] It is found on some images of the

[1] *Kādambarī*, pp. 203, 212.

[2] *Mallikā-kusuma-duṇḍubhakena, Naish.*, XXI, 43. Īśānadeva, a commentator (A.D. 1322), records that the *duṇḍubhaka* was made by roping together several garlands known in popular language as *ṭoḍara*. Nārāyaṇa,

medieval period. It was specifically a male ornament and its tradition has come down to our own days in the form of the *gajrā* necklace worn by men.

258. No. 3610, ACIII, KX/A8k, –40′; St. II: A.D. 750–850.

259. No. 8159, ACIII, a surface-find (ht. 7″, breadth 6″, thickness of brick, excluding relief, 1·75″).

Type 24. Hollow round plaques

Three hollow round plaques, similar in style to those from Rājghāṭ and other sites, have been found at Ahichchhatrā.

260. Hollow plaque (diameter 3′ 7″; thickness 5″) showing a lion crouching under a tree with fruits resembling by their eyes and suckers a pine-apple. This resemblance is only superficial, as the pine-apple does not grow on a tree, and the fruit is not of much antiquity in India. According to Watt it was introduced by the Portuguese in Bengal in 1594, but being mentioned by Jahāngīr in his Memoirs [1] its introduction into this country may have been rather earlier. Mr. C. McCann, lately Joint Curator of the Bombay Natural History Society, whom I consulted, is inclined to identify the fruits with those of the Screwpine, *Pandanus*, female plant. He writes: 'The foliaceous appendages giving them the resemblance to a pine-apple are possibly the sheath of the inflorescence. The Y-branching and the stilt-roots below the lion also point to the plant being a *Pandanus*. Some forest species of the genus are very large compared with the ordinary *keora* seen along seashores—*P. odoratissima*'.

On the reverse is a floral design consisting of a lotus in the centre encircled by a coiled garland, with a beaded border separating the two. At one end is a small lug with a suspension-hole showing that it was used for decorative hanging.

No. 8135, ACIII, KX/L1d, –48′; St. III*d*: A.D. 350–450, which agrees with its style.

261. Plaque (diameter 3·5″; thickness 1·15″) showing granular indentations, perhaps for use as a foot-rubber, on the reverse, and a soldier holding an elongated concave shield in the left hand and some weapon in the raised right hand, now broken on the obverse. The soldier is engaged in the act of curbing an elephant. This was a familiar type in the post-Gupta period, referred to as *vaṇṭha* by Bāṇabhaṭṭa. The name was applied to persons who, as bachelors, developed such enormous muscular strength as to enable them to face with reckless courage the might of an elephant.[2] They were enrolled as foot-soldiers whose services seem to have been specially sought in the elephant-wing of the army. King Harsha's elephant-squad contained a number of these reckless heroes.[3]

The figures are in low relief, and the elephant with its crouching legs and rolled body is similar to the animal often depicted in the scene of Māyādevī's dream on Gupta stone-reliefs at Sārnāth.[4]

No. 3662, ACIII, KX/F3f, –45′; St. III*a*: A.D. 650–750.

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another commentator (fifteenth century), explains it as a thick compact flower-garland resembling a *duṇḍubha* snake (*duṇḍubhasya viphaṇatayā sāmyāt sthūla-ghanatare pushpa-dāmni duṇḍubha-padam lākshaṇikam*). See Handiqui, *Naishadhacharita*, Eng. trans., notes, p. 564.

[1] George Watt, *A Dictionary of the Economic Products of India* (1889), I, 236; *Memoirs of the Emperor Jehangueir* (trans. Major David Price, Calcutta, 1904), p. 22.

[2] *Vaṇṭhāḥ akṛitavivāhāḥ taruṇā ye daṇḍam=ādāya hastināṁ darpam=ākarshayanti, pattaya ity-anye*, Śaṅkara's commentary on *Harshacharita*, p. 211.

[3] *Harshacharita*, VII, p. 211, *meṇṭha-vaṇṭha-vaṭhara-lambana-leśika-cheṭa-chāṭa-chaṇḍāla-maṇḍalaiḥ*.

[4] Cf. D. R. Sahni, *Catalogue of the Museum of Archaeology at Sārnāth* (Calcutta, 1914), pl. XX, the scene of 'conception and nativity' in stone-relief no. C(*a*)2.

262. Round hollow plaque showing a male figure with his legs terminating in the open jaws of two fish-tailed crocodiles, a motif familiar in the art of Mathurā.[1]

No. 10183, ACI, R. 153, –24′.



FIG. 2. *Plaque showing different poses of elephants (no. 262 (a))*

(*a*) Round plaque carved on one side with a study of elephant poses, and on the other with birds of various kinds. The elephants, including both male and female, young and old, are arranged in three round bands, showing in the centre a full-grown tusker standing facing, in the second band a row of eight, and in the third of twelve elephants. This was one of the most exquisite and interesting finds from Ahichchhatrā, and a unique specimen of its kind in Indian art. Unfortunately before it could be photographed it was reported missing, and its only surviving record is an unfinished pencil-sketch of the obverse side done by Mr. C. Sivaramamurti showing a study of elephants in various poses, full of life and movement (fig. 2).

TYPE 25. KINNARA-MITHUNA PLAQUES

Three clay plaques depicting the Kinnara-mithuna motif have been found at Ahichchhatrā.

263. Rimmed disc from a single mould showing the Kinnara pair standing to right.

No. 9242, ACVII, GV/D7e, –41′.

264. Plaque with a flat base, bearing on both sides a relief depicting the same scene, namely, a galloping horse with human bust ridden by another figure. The anklets round the foot of the rider show that the figure borne on the back was female. The horse is caparisoned and adorned with prominent bosses (*chakraka*) in the side-girth. The plaque is very similar to the Mathurā stone sculpture carved on both faces with the figure of a galloping female centaur with her companion.[2]

No. 6827, ACIII, KIX/K3a, –44′; St. III*b*: A.D. 550–650.

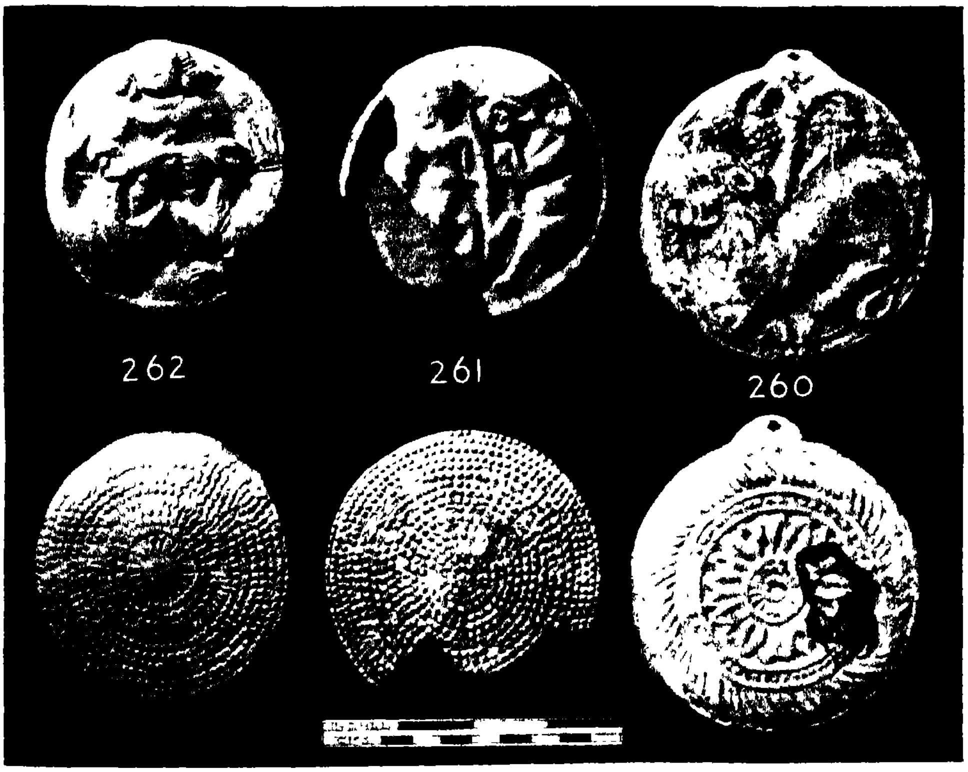
The third (see no. 303 below) is a big square plaque, once fixed in the frieze of Temple ACI, and is in the best traditions of Gupta art, preserving many details of drapery and ornamentation. In it the main figure is a female Kinnarī with a human bust combined with the body of a horse, accompanied by her male partner who is shown as a normal human being.

[1] J. Ph. Vogel, *Catalogue of the Archaeological Museum at Mathurā*, p. 162, pl. XXV, fragment of *toraṇa*-lintel M. 2.

[2] Ibid., p. 111, relief F1.



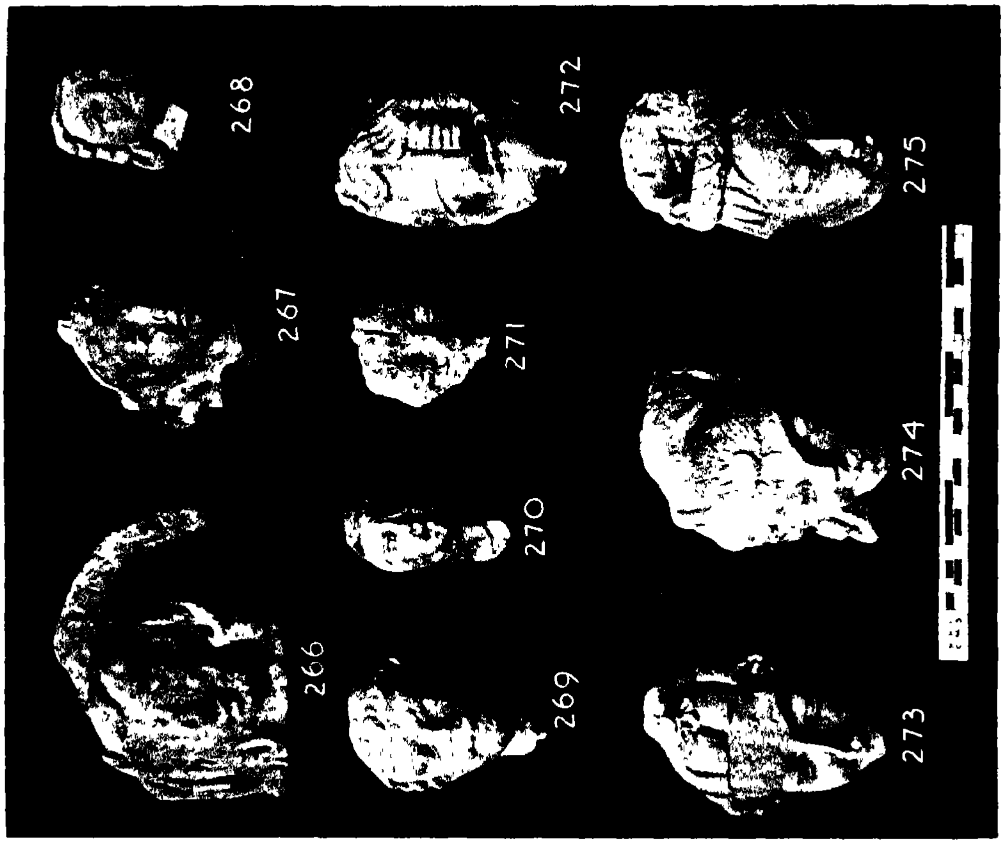
A *259, Type 23, Dampatī figure, 265, Type 26, drummer*



B. *Type 24, hollow round plaques*

PLATE LVIII

To face page 163



B Type 27. Sub-type (i). miscellaneous female heads



A. Type 25. plaque with Kinnara-mithuna, front and back

The Kinnara-mithuna is an ancient motif of Indian art being found at Sānchi, Mathurā, Rājghāṭ, Ahichchhatrā and Bādāmī.[1] The extant specimens show that in all cases, except one at Sānchī (Marshall, III, pl. LXXV) and another at Ahichchhatrā, the principal striding figure is that of the centauress. Literary evidence refers to two kinds of Kinnaras: one with human head joined to an equestrian body, and the other with horse's head joined to a human body.[2] In art the variety with the face of a horse is found in illustrations of the Aśvamukhī Yakshī at Mathurā and elsewhere, represented alone. As pairs of romantic lovers, the figures of Kinnaras always show a human face with the body of a horse for the striding figure and a normal human being for the rider on its back.

The correct nomenclature of this motif can be gleaned from the *Rāmāyaṇa* where the pair is designated as the passionate Kinnara-dvandva, dallying on a hilly terrain.[3] In the *Kādambarī*, Bāṇabhaṭṭa also mentions a Kinnara-mithuna beguiling prince Chandrāpīḍa away from his army and then ascending a rocky region, finally to disappear from view.[4] He also describes a Kinnara-mithuna amongst the inmates of a king's palace.[5] In view of this literary testimony, the correctness of the name Kinnara-mithuna as applied to this motif may be accepted.

TYPE 26. DRUMMER OR DUNDUBHIKA

265. Fragment of a plaque showing in a sunken panel a squatting figure of a drummer beating a round drum (*dundubhi*) with an angular stick called *koṇa*. He wears a sleeved and striped tunic and short trousers with a belt fastened in the middle of the body. The face is round and plump, ears long and cloven, and the hair combed and arranged in sweeping locks terminating in voluted curls (*fig. 1, 10*). This coiffure of the peacock-feather style (*barha-bhāra-keśa*),[6] common at Rājghāṭ, is rare at Ahichchhatrā. The form of the *dundubhika* type is confirmed by a similar figure repeated on plaque no. 304.

No. 10655, ACII, R. 127, –43′.

(*a*) Elongated brick (3·5″) showing on the narrow side the projecting head and bust of a male figure depicting a Vidyādhara looking downward (*avāṅmukha-vidyādhara*).

No. 11602, ACII, Room 137, –46′.

TYPE 27. MISCELLANEOUS MALE AND FEMALE FIGURES

Sub-type (i). Female heads

The female heads noted below are specimens detached from terracottas of larger size. They are distinguished by their bold relief, all being produced from single deep moulds,

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1 Sānchi, J. Marshall, *Monuments of Sānchi* (Delhi, 1941), III, pl. LXXXIX, fig. 81*b*; pl. LXXV, fig. 7*b*; Mathurā, *Annual Bibliography of Indian Archaeology* for 1934 (Leyden, 1936), pl. IV*e*; Rājghāṭ, Rai Krishnadasa, 'A Kinnara-mithuna Terracotta Case from Rājghāṭ, Benares', *Journal of the U.P. Historical Society*, XV (July, 1942), pp. 43-4 and pl. III. There is a Kinnarī figure on a door-jamb in the Malegitti temple at Badāmī.

2 *Kinnarā dvividhāḥ proktā nṛivaktrā hayavigrahāḥ nṛidehāś=chāśvavaktrāś=cha tathānye parikīrtitāḥ*, *Vishṇudharmottara*, III, xlii, 13-14. See also *Kumārasambhava*, I, 11 for reference to Aśvamukhī.

3 *Śailaprastheshu ramyeshu paśy=emān kāmaharshaṇān Kinnarān dvandvaśo bhadre ramamāṇān manasvinaḥ*, Ayodhyākāṇḍa, xciv, 12. The verse is literally illustrated in the big plaque from Ahichchhatrā (no. 303).

4 *Kādambarī*, p. 119.

5 *Upāhṛita-kinnara-mithunāni rājakulam, Kādambarī*, p. 89.

6 Daṇḍī refers to this hair-style as *līlā-mayūra-barha-bhaṅgi* in his *Daśakumāracharita* (N.S. Press edition), pp. 46 and 58.

and are different in style from the terracotta female heads in low relief from shallow moulds, found mostly in Stratum III*a* on site ACIII (Type 16). The heads show a pleasing variety of hair-styles, partaking of the traditions of Gupta art as developed during the fifth and sixth centuries A.D.

266. Head of a female figure (4") with a roundel framing the head, wearing a triple ring in the cloven side of the right ear and a spiral pendant in the left.

No. 10841, ACIII, KX/F1f, –50½′; St. IV*b*: A.D. 200–300. Stylistically it should be assigned to about the sixth century.

267. Woman's head (3·25") with projecting top of hair at back, curls on forehead and a fillet fastened in the middle. Long rings in ears.

No. 6374, ACIII, KX/A1j, –44½′; St. III*a*: A.D. 650–750.

268. Woman's head (2·25") with wavy hair and round rings in ears.

No. 6710, ACIII, KIX/E10h, –43½′; St. III*a*.

269. Woman's head (3·5") with hair combed in plain locks and curls at the sides and adorned with a flowery boss in the middle.

No. 6785, ACIII, KIX/E9h, –42½′; St. II: A.D. 750–850.

270. Woman's head (2·5") adorned with a crescent.

No. 3644, ACIII, KX/A8j, –42′; St. III*a*

271. Woman's head (2") showing only the face. A grooved line from the centre of the eyebrows to the upper line of the forehead. Coarse clay with profuse mixture of rice husk.

No. 4459, ACIII, KX/A1f, –42′.

272. Woman's head (4") showing only the upper left side. Wavy hair ending in spiral *alakāvalī* on the side. The spirals are indicated by deep winding grooves.

No. 10621, ACII, R. 194, –53½′.

273. Woman's head (3·5") with beautiful coiffure of plaited strands combed back and gathered in a knot on the nape. A flower-ornament is worn on the head. Double round ear-ring in left ear.

No. 10699, ACII, KVIII/E2j.

274. Woman's head (3") with elaborate coiffure consisting of a row of single locks arranged on the forehead, two loose locks hanging on the cheeks and plaited locks combed backwards and gathered behind the head in a big globular mass interwoven with a heavy garland. Above the left ear is seen a mango-sprig (*āmra-mañjarī*) to adorn the hair. Pearl-studded rings in both ears.

No. 10160, ACI, R. 83, –26′.

275. Woman's head (4") with hair arranged in locks on the forehead, above which is fastened a thick garland.

No. 11608, ACII, KVIII/K3k, –54′.

Sub-type (ii). Headless female figures

This group is allied to the female heads of bigger size and bolder relief described above and is represented by a limited number of specimens. Four specimens come from ACIII, three from St. III*a* and one from St. III*c*.

276. Woman's bust (4") wearing a rich necklace and a bodice with an embroidered fringe in front.

No. 6468, ACIII, KIX/K7k, –46'; St. IIIa: A.D. 650–750.

277. Woman's bust (3·5") wearing a typical pearl-necklace of single string with a cylindrical bead in the centre.

No. 6314, ACIII, KX/A2k, –43'; St. IIIa.

278. Fragmentary plaque (5"×6") showing a reclining female figure, with her bust raised and its weight resting on the hands. She is wearing armlets, wristlets and a girdle of flattened beads.

No. 6306, ACIII, KX/F2b, –44'; St. IIIa.

279. Torso of a female figure, hollow inside, wearing a *cholī* fastened between the breasts, a *lañhgā* and a scarf. This style of dress is typical of the rural costume in North India to this day and seems to have been introduced some time in the post-Gupta period by immigrant tribes. It is conspicuous by its absence in the clay figurines of the Kushāṇa and typical Gupta style. The *lāñhgā* is fastened tightly by a cord called *nāḍā*, the ends of which are hanging in front.

No. 9387, ACVII, GV/E1e, –40'.

280. Fragment showing a seated woman with a child on her left leg. The child is nude and wears a big round plaque (*padaka*) hanging from a string round the neck. This agrees with Bāṇabhaṭṭa's description of a child's neck adorned with a thread-amulet.[1] It also wears armlets, bracelets, anklets and a girdle. The face and the hair are similar to those on the figures of nude boys and *mṛidaṅga*-players from Rājghāṭ, and of the Nāga figure on a solar plaque from Ahichchhatrā (no. 100).

No. 1328, ACIII, KX/V9k, –34'.

281. Female bust wearing a necklace of gadrooned and plain beads, and an *uttarīya* across the breast in what was known as the *vaikakshyaka* style.

No. 10160, ACI, R. 83, –26'.

Sub-type (iii). Miscellaneous female figures

282. Oval plaque (2·25") showing a miniature female figure standing in a graceful posture holding flowers in both hands. A suspension-hole above head. Four other holes were pierced to render the body free from the framing margin.

No. 9013, ACVII, GV/H9e, –40'.

283. Miniature plaque (1·5") showing a female figure standing gracefully with left leg placed across the right. Suspension-hole between the feet, another hole at the top, now broken.

No. 9089, ACVII, GV/C9d, –37½'.

284. Torso of a female figure (2") in squatting posture with bust twisted to the right side.

No. 4270, ACIII, KIX/E5f, –40'; St. I, but stylistically Gupta.

285. Torso (2·5") of a standing woman wearing a long-sleeved tunic which leaves the abdomen bare, and skirts covering the lower part of the body. Right arm hanging parallel to the legs and left raised to the shoulder.

No. 1374, ACIII, KX/F6f, –43'; St. II(?).

286. Lower portion (1·5") of a dancing female figure with legs placed cross-wise. A remarkable feature is the skirt (*lañhgā*) falling in folds on the feet. It is made of the same kind of Sāsānian textile (Pahlavi *istabrak*,

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[1] *Gaṇḍakābharaṇā bālagrīvā, Kādambarī*, p. 20.

Skt. *stavaraka*) embroidered with strings of pearls, as seen on the coat of Sūrya no. 102 (fig. 1, 17).[1] The figure represents a female dancer (*nartakī*) which as a type is mentioned by Bāṇa in the long list of his friends and associates.

No. 9449, ACVII, GV/C9f, –40′.

287. Pregnant woman (2·25″) with her hands placed on the inflated abdomen and legs flexed at knees and turned backwards, the characteristic pose of a woman at child-birth. There is a projecting support at the back. The figure was produced from a single mould and may have been used as a votive offering to invoke the blessing of fertility.

No. 3597, ACIII, KX/F3f, –43′.

Another hand-made figure of a pregnant woman (no. 3592) was found in ACIII, St. I, resembling in style the woman in the Dampatī plaques of that age.

288. Fragment (2″) used as handle of a pottery bowl showing woman's body with hands raised aloft. It is concave at the back. Pottery handles of this type adorned with female figures were found in the Sāmbhar excavations in Jaipur State.[2]

No. 4496, ACIII, KIX/E10j, –43′; St. III*a*: A.D. 650–750.

289. Curved handle as above showing a female figure with folded hands.

No. 10635, ACII, R. 175, –48′.

290. Woman's head with hair arranged in two lateral masses and a cylindrical topknot.

No. 9060, ACVII, GV/D10c, –41′.

291. Woman's head from a tiny figure showing the hair indicated by a raised line on the forehead, a crest-jewel, eyebrows indicated in a continuous line and full lips parted in the middle. As a specimen from Stratum III*c*, it is an example of early Gupta art.

No. 6995, ACIII, KIX/K9c, –47′; St. III*c*: A.D. 450–550.

292. Young woman's head with exquisite smiling face. Hair arranged in cap-like form above the forehead as in Mathurā figures of the Kushāṇa period.

No. 3067, ACV, QVIII/P3h, –50′.

Sub-type (iv). Male heads

293. Male head (3″), with hair indicated by a ridge on the forehead, prominent nose-bridge and eyebrows, eyelids and pupils indicated by incised marks. The indication of the two ends of the mouth (*sṛikkāprānta*) by deep notches is a special feature. Fine buff clay with traces of red paint.

No. 3661, ACIII, KX/A3j, –44′; St. III*a* : A.D. 650–750.

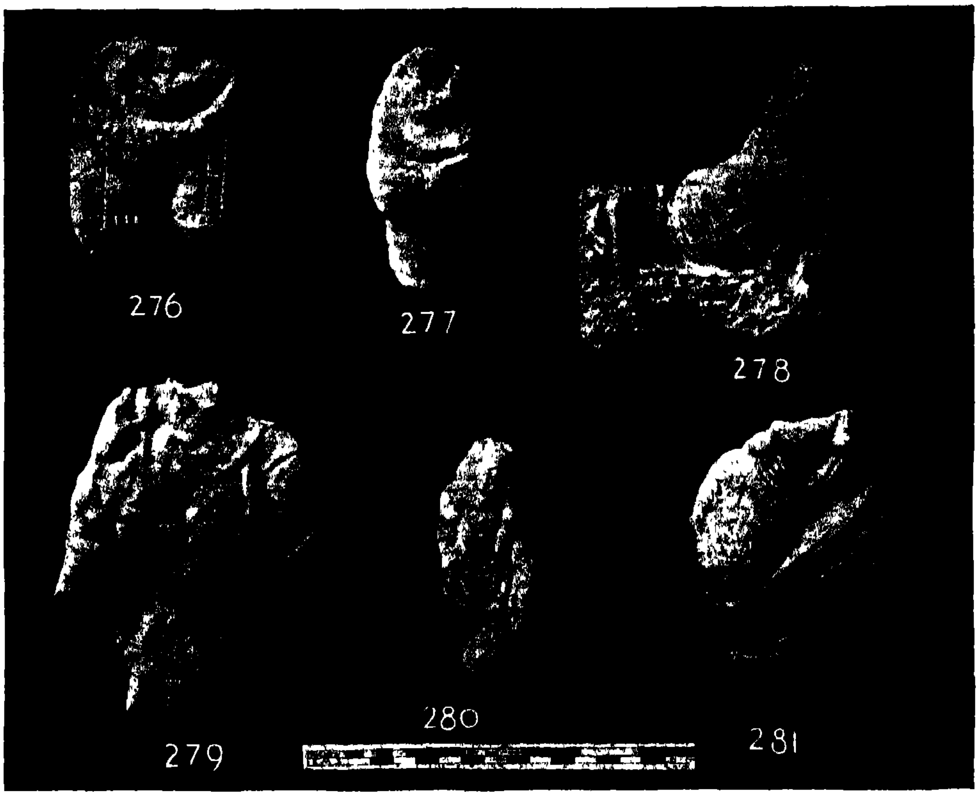
294. Head (2″) with wavy hair arranged on the forehead; eyebrows indicated by a continuous incised line. The two ends of the mouth, the small depression above the upper lip and in the centre of the lower lip, are typical features in this as well as in the preceding head.

No. 900, ACIV, MIX/H1e, –36′.

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[1] See above, p. 130 and below, p. 178, Appendix.

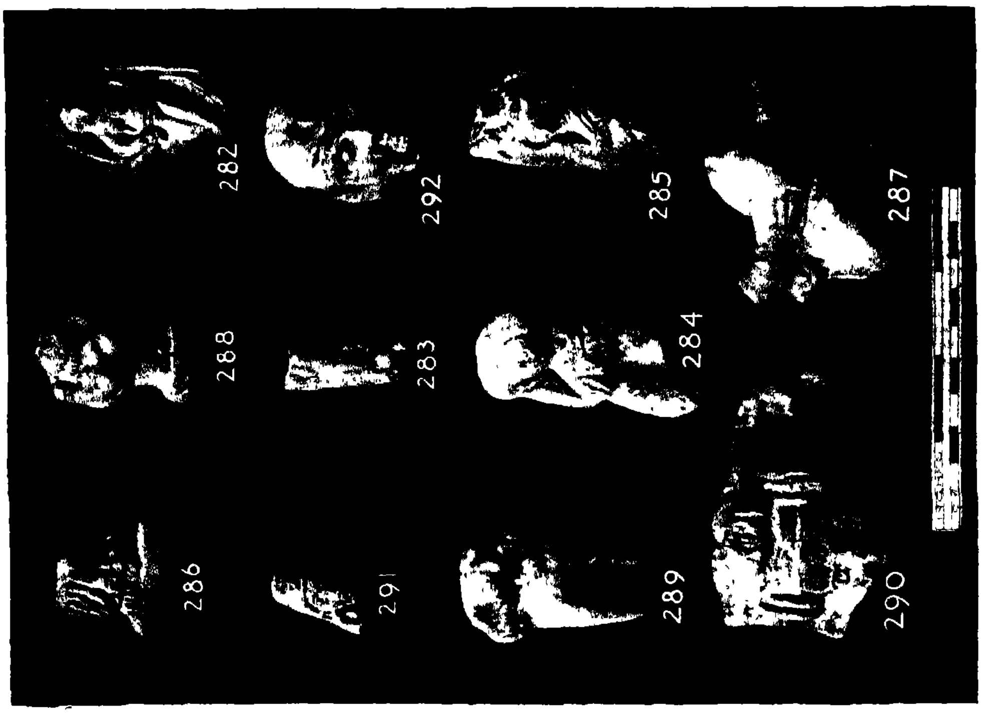
[2] Daya Ram Sahni, *Archaeological Remains and Excavations at Sambhar, 1936-7 and 1937-8* (Jaipur), p. 25, pl. IV*a* and XVI*a*.



Type 27, Sub-type (ii), headless female figures

PLATE LX

To face plate LXI



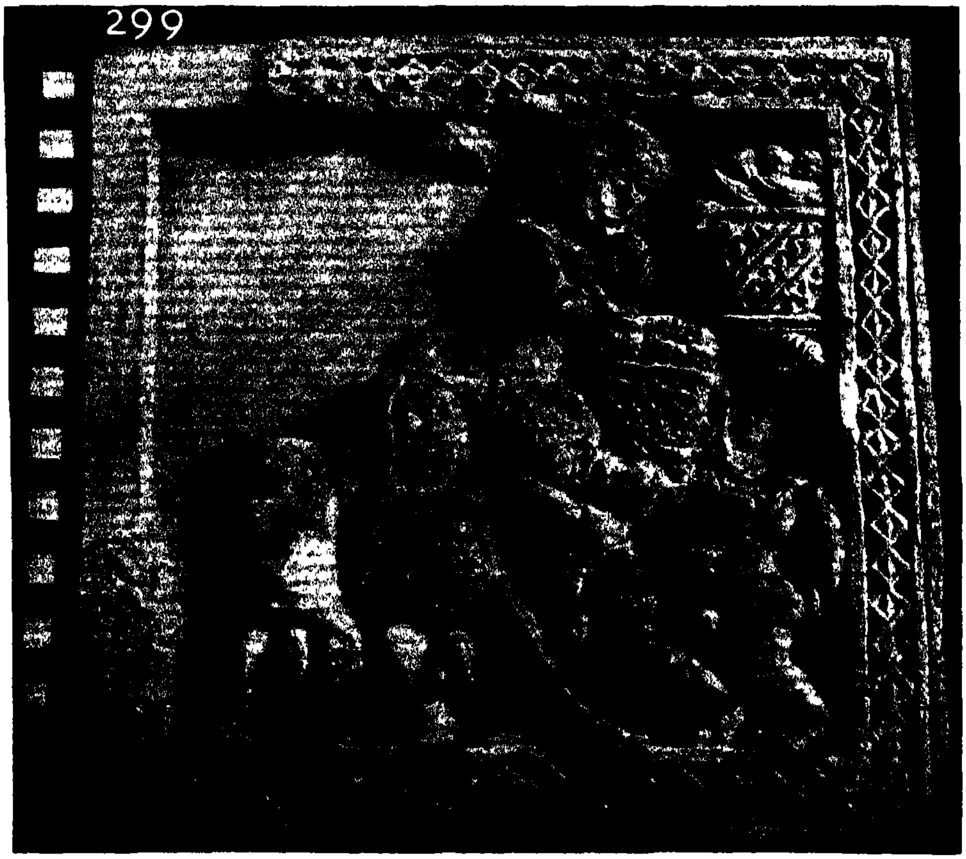
A. *Type 27, Sub-type (iii), miscellaneous female figures*



B *Type 27, Sub-type (ii), miscellaneous male heads*



Type 28, plaque with Śiva-gaṇas, destroying Daksha's sacrifice. (Scale of inches.)

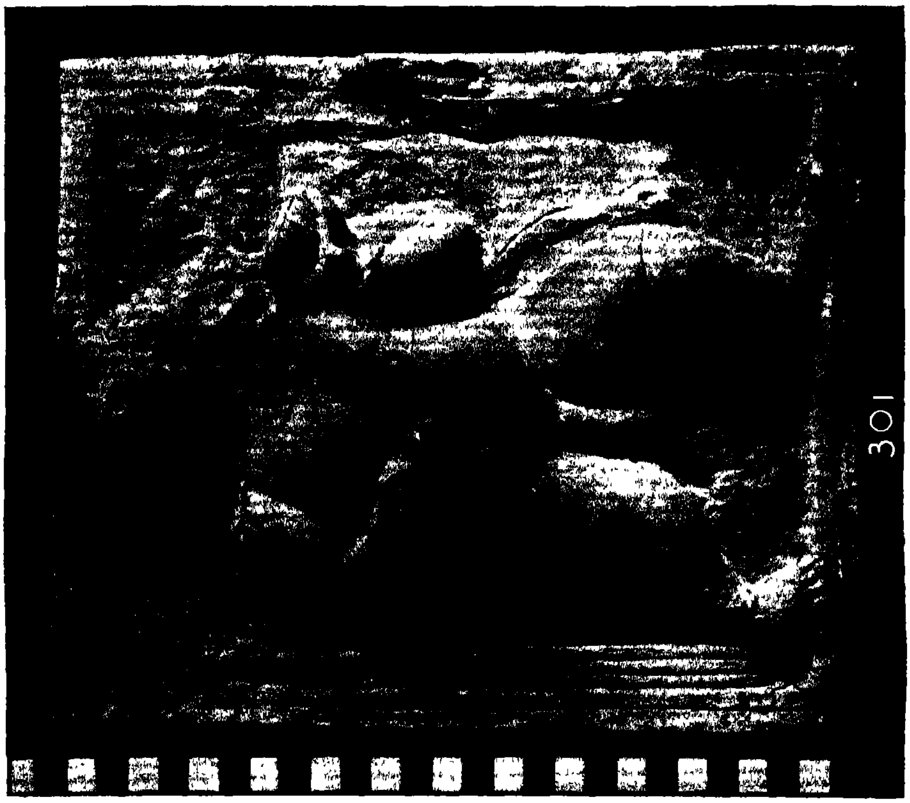


Type 28, plaque with Śiva-gaṇas, scrambling for sweets. (Scale of inches.)



Type 28, plaque with Śiva as Bhairava. (Scale of foot and inches.)

PLATE LXIV



A. *Type 28, plaque with Śiva holding a begging-bowl* (Scale of inches.)



B *Type 28, plaque with a form of Śiva.* (Scale of inches.)

295. Head (3·5") of a young man with hair arranged in parallel locks on the two sides of the central parting. The eyeballs are set in sockets but without pupils. The head reflects classical features, and is a unique specimen of its kind from Ahichchhatrā.

No. 10152, ACI, R. 147.

296. Head of a smiling boy with curly hair and a knotted ribbon passing on one side.

No. 10026, ACI, R. 2, −32′.

297. Man's head (2·5") with fierce-looking face, having crooked eyebrows and rolling eyeballs. The type closely agrees with Bāṇa's description of the warrior-lord of the Śabara tribe with special reference to the following particulars [1]:—

(i) The angry eyebrows making a three-pronged wrinkle on the forehead. This is called *tripātaka-bhṛikuṭi* by Bāṇabhaṭṭa and compared with a trident (*baddha-tripatākogra-bhṛikuṭi-karāla-lalāṭa-phalaka*).

(ii) Hair indicated by slightly incised lines representing the short hair just growing on the youthful chin (*udbhidyamāna-śmaśru-rāji*).

(iii) Loose curly hair falling from the head on to the shoulders (*ākuṭilāgra-skandhāvalambī kuntalabhāra*).

(iv) Long prominent nose (*drāghīyas ghoṇāvaṁśa*).

(v) Fierce looking eyes.

The above features show that the face was obviously intended to represent a person of a wild tribe and probably depicted a hunter.

No. 803, ACII.

Type 28. Plaques from the Śiva temple in ACI

The Śiva temple in ACI is a massive brick structure unique of its kind in North India. On plan it is similar to the quadrangular Buddhist *stūpas* raised in several tiers, diminishing upwards like a gigantic staircase.[2] The structure answers closely to what the *Vishṇudharmottara Purāṇa* describes as an *eḍūka* built in three terraces (*bhadra-pīṭhas*), one above the other, with four stepped approaches and surmounted on the top by a Śiva-liṅga.[3] The monument, still having a colossal Śiva-liṅga on its top, must therefore be identified as an *eḍūka* dedicated to Śiva.[4]

The temple was built on the ruins of an apsidal temple of Kushāṇa times and its first construction may be assigned to the Gupta period. Large plaques were fixed in a frieze running round its upper terrace. Several of them are distinguished by excellent workmanship, and on the basis of their style may be assigned to a period between *c.* A.D. 450 and 650.

The plaques are of great interest for their subject-matter appertaining to Śiva's life. His exploits as gathered from the surviving specimens reveal a full-fledged development of Śaivite mythology. They illustrate, for example, the theme of his destroying the sacrifice of Daksha Prajāpati, his father-in-law, the holocaust wrought there by his playful *gaṇas*, his assumption of the terrific form of Bhairava, his peripatetic aspect with the begging-bowl in hand, his *ūrdhva-retas* form as Lakulīśa, his dalliances with Pārvatī in the renewed marital life, and finally his reposeful ascetic form as Dakshiṇāmūrtī, the lord of *yoga* and divine

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[1] *Kādambarī*, text, p. 30, describing a *Śabara-senāpati*.

[2] Cf. the description of a monumental (*maheśākhya*) stūpa with three terraces (*tri-medhi*) in the *Divyāvadāna*, text, pp. 243ff.

[3] *Vishṇudharmottara*, III, lxxxiv, 1–4; also A. K. Coomaraswamy, 'Indian Architectural Terms', *Journal of the American Oriental Society*, 48 (1928), 270.

[4] An earlier reference to numerous *eḍūkas* worshipped all over the country occurs in the *Mahābhārata* (Vanaparva, cxc, 65–67); The critical edition from Poona gives a variant of the name as *jārūka*, apparently a Sanskritized form of *ziggurat* with which these buildings seem to have had structural resemblance.

wisdom. From a study of the specimens one thing stands out clear, namely, that the iconography of the figures seems to have been quite elastic during that formative period of Purāṇic Hinduism. The modellers concentrate more on the central theme of the story than on the rigid details of the iconographic formula, such as was insisted upon by the later *Śilpa* and *Āgamic* literature.

298. Plaque (2′ 2″×2′ 1″×5″) showing a scene in which nine figures arranged in two rows participate. The figures in the lower register are: (i) a male *gaṇa* holding a battle-axe in the right hand; (ii) an angry nude *gaṇa* holding a bowl (*kapāla*) in the right hand and pulling the next figure by his girdle; (iii) a two-armed figure turning away, holding a snake-headed attribute in the left hand, being himself pulled by the next figure; (iv) a two-armed figure wearing a *mukuṭa* like that in the figures of Vishṇu, his left hand being placed on a long staff or club; and (v) a male figure wearing a high crown and holding in the left hand a thunderbolt which shows him to be Indra.

In the upper row, first from the left is the figure of a *gaṇa* wearing a *chhannavīra* ornament and a short loin-cloth, with a dagger inserted in his belt, and carrying a sword in the right hand raised above the head and a shield in the left (these two attributes were preserved in a detached fragment which is now missing). The next figure is that of a nude *gaṇa* with a dagger inserted in the belt, holding a double-edged straight sword in the right hand, and pulling with the left the bearded face of the figure in front, who is an ascetic or a *ṛishi* wearing *valkala* and having a rosary in the left hand. The fourth figure is wearing a *dhoti*, a scarf and a head-dress with three projections, and holding in the left hand a vase.

The scene may be identified as the sacrifice of Prajāpati Daksha interrupted by Śiva's *gaṇas* or attendants (*Daksha-yajña-vidhvaṁsa*). The story is related in the *Mahābhārata*, Śāntiparva, ch. cc'xxxiv. The figures in the lower row consist of three gods who assembled at the sacrifice and a pair of Śiva-*gaṇas* who caused havoc to it. The person with the *vajra* is undoubtedly Indra. The actors in the upper row are Śiva-*gaṇas* again, one of whom is attacking a *ṛishi*, probably the officiating priest at the sacrifice; the last figure seems to be that of Daksha himself.

No. 10159, ACI, R. 149, –27′.

299. Plaque (2′ 2″×2′ 3″×5″) showing Śiva-*gaṇas* engaged in a scramble for sweets, helping themselves merrily to the contents of two baskets, containing *motīchūr laḍḍus* and *guñjhiā* in one and *motīchūr* only in the other—an important piece of evidence for the history of Indian sweets. Frequent references to *laḍḍuka* balls are found in the *Divyāvadāna*, p. 513. The scene of the looting of the eatables piled up at the sacrifice of Daksha forms a major episode in the drama as related in the *Mahābhārata*. The present plaque obviously continues the story of the preceding one. The *gaṇas* of Śiva, four in the lower and one in the upper row, are all depicted as nude corpulent dwarfs with conspicuous genitals. They are similar to the *pramathas* often depicted in sculpture on the door-jambs and friezes of Gupta temples and also recall the group of nude mendicants painted in Cave 17 at Ajaṇṭā.[1]

No. 10158, ACI, R. 148, –27″.

300. Plaque (2′ 2″×2′ 1″×4·5″) with a four-armed figure of Śiva in the terrific form of Bhairava. The back right hand holds a long trident, the front one seizes the right horn of a bull hurled on the shoulder, the hind leg of the animal being grasped by the left arm held aloft on the other side, and the fourth hand holds a *khaṭvāṅga* (?) or mace with round head marked by radiating grooves. The god has a terrific aspect with yawning mouth, protruding eyes, twisted moustaches, short erect *jaṭās*, a wrinkled forehead with the third eye, angry eyebrows with a triple contortion between them (the *tripatāka-bhṛikuṭi* of Bāṇa), long split ear-lobes and a flabby belly.[2] He wears a flat necklace with raised bosses, bracelets, anklets and a short loin-cloth. A

[1] Bhavani Rao, Pant Pratinidhi, *Ajantā* (Bombay), pl. 74.

[2] For some of these details of Bhairava's iconography, see T. A. Gopinath Rao, *Elements of Hindu Iconography* (Madras, 1914), II, 177. Cf. also his aspect with flabby belly (*lambodara*), round eyes (*vṛitta-lochana*), broad nostrils (*phulla-nāsāpuṭa*) and serpent-decoration (*sarpa-bhūshaṇa*), enjoined by the *Vishṇudharmottara*, III, lix, 1-2.

serpent descending from the left shoulder is arranged as the sacred thread with a knot on the god's left formed by its tail looped with the hissing head.

The plaque has suffered from exfoliation of the thick upper crust on the abdomen, right elbow, and knees, which shows that the rough core of hard brick clay was covered with a thick coat of fine clay before firing. The face and other parts of the decoration seem to have been made with separate moulds.

No. 10142, R. 23, –9′.

301. Plaque (2′ 3″×1′ 10″×4″) showing in bold relief an image of a two-armed male figure moving rapidly to right. He holds a bowl (*bhikshāpātra*) in the left hand which is raised to shoulder, and has the right hand placed on his paunchy abdomen with a flat band (*udara-bandha*). He wears a sacred thread with small pendant bells (*ghargharikā*), a *vyāghramukha* ornament in the centre of the chest, and a *kaupīna* indicated by incised lines. The figure represents Śiva as a wandering beggar (*Bhikshāṭana-mūrtī*).

No. 10145, ACI, R. 117, –6½′.

302. Plaque (2′ 2″×1′ 10″×4·5″) showing in bold relief a standing male figure with dwarfish legs. The head is covered with spiral locks falling on to the shoulders, and the arms are folded at the elbow with the right hand placed on the breast. He wears a single elongated bead-pendant from a thin string, a short loin-cloth with the front fold passing on the back in the *kachchha* style, and a conspicuous rolled scarf of gadrooned folds with forked ends hanging on either side. The figure seems to represent Śiva in one of his many forms. The plaque was found with the *Bhikshāṭanamūrtī* image.

No. 10146, ACI, R. 117, –6½′.

(*a*) Plaque (15″×11″×4″) showing a four-armed standing figure with an axe (*paraśu*) held in right hand. The distinguishing symbol of *ūrdhva-retas* (erect *membrum virile*) shows him to be Śiva as Lakulīśa, an aspect specially worshipped by the Pāśupata sect of Śaivas.

No. 10163, ACI, R. 148, –27′ 6″.

(*b*) Plaque (1′ 8″×1′ 8″×4″) showing a seated four-armed figure with a female figure standing in adoration (*añjali-mudrā*) on his left and an attendant male figure in the upper corner (fig. 3). He holds a rosary in the back right hand and a vase with foliage in the left. The lower right arm was flexed at the elbow and the hand placed on the chest in what seems to have been called the



FIG. 3. *Plaque showing Dakshiṇāmūrti Śiva (no. 302 (b))*

saṁdaṁśa-mudrā or the 'tong-pose'.[1] This particular hand-pose, the rosary in the back right hand, the vase in the left (an *amṛita-ghaṭa* according to the *Vishṇudharmottara*), the matted locks and the general reposeful attitude of the figure, all suggest that the deity represented is Śiva in his *Dakshiṇāmūrtī* form. Knowledge is called *dakshiṇā*, and Śiva as the highest *yogī* and lord of wisdom was conceived of in this special aspect, immersed in concentration in a secluded spot of the Himālayas.[2]

The female figure adoring Śiva with folded hands seems to be Pārvatī herself, who according to the story related in the *Kumārasambhava*, waited upon Śiva while he was performing penance in his hermitage. According to the later texts also, Śiva as Kāmāntaka when he reduced the god of love to ashes, an event which took place in the presence of Pārvatī, appeared in his *Dakshiṇāmūrtī* form, i.e. the aspect of knowledge and *yogic* wisdom.[3]

No. 10170, ACI, R. 83, −28′.

(*c*) Fragment of a plaque (1′ 5″×1′ 6″×4″) showing an amorous couple. The male figure is kissing his partner by drawing her lower lip between his lips (*adhara-pāna*). Her hair is tied in a braid at the nape, and his hair covers the head in frizzled locks gathered in a topknot at the back fastened by a garland. The scene may be related to Śiva's amours with Pārvatī after their re-union, which forms a subject of elaborate description in the *Kumārasambhava* of Kālidāsa.

No. 10198, ACI, R. 155, −35¼′.

303. Plaque (2′ 2″×2′ 2″×4″) showing a Kinnara-mithuna or pair of centaurs. The centauress, with a human bust joined to the lower part of a mare, is galloping on a hilly terrain carrying on her back her husband shown as a normal human being. Her right hand is held in the *tripatāka*-pose. The elaborate head-dress of trefoil pattern consists of two side-masses and a fan-like crest in the middle. The hair on the forehead is indicated by a concave line and then combed backwards, being finally gathered in the form of a heavy spiral braid arranged in a loop on her right. The two ends of its ribbon are shown fluttering behind the shoulder. The corresponding loop on the other side is formed by a beautiful double garland. A pearl-string passes in a sweep from the right to the left ear. The central fan-like crest is decorated by a cluster of flowery arrows attached to a round crest-jewel. She is wearing round ear-rings, a flat torque of rectangular plaques, an *ekāvalī* pearl-necklace, loose bracelets on the right arm and a ring on the small right finger. Her left hand, placed on the shoulder of the male figure, is wearing a swinging loose bangle (*dolā-valaya*) (fig. 1, 4). A girdle of lozenge-shaped beads is worn round the hips on her upper body. She is wearing a scarf, the ends of which are seen fluttering on the left side below her arm and on the right side behind the body of the male figure. On the back of the horse is a saddle (*paryāṇapaṭṭa*) fastened by a broad striped band. From the middle of the saddle hangs a tassel ending in a knob. On the hind quarter of the horse is the side-girth (*kakshyābandha*) adorned by a medallion (*chakraka*).

The male figure fondlingly touches the chin of the centauress with his right hand and holds a bow in the left. Above the line of hair on his forehead is a hatched jewel surmounted by a *kīrtīmukha* emitting double pearl-festoons. In his ears is a double ring-pendant with an oblong plaque attached to it. He is wearing a *chhannavīra* ornament with a round *padaka* on the chest, flat studded wristlets, and a ring on the right small-finger. The bust is covered by a hip-length tunic secured by a belt, with half-sleeves covering only the upper arms. Under the tunic are knickers consisting of parallel folds, leaving the knees bare.

In the upper right corner is a flying garland-bearer and in the left fore-ground a tree growing on rocky ground covered with boulders. The Kinnara-mithuna was a popular motif in the time of Bāṇabhaṭṭa, who refers to it as being pursued by prince Chandrāpīḍa and then disappearing on a hill-top (*achala-tuṅga-śikharam = āruroha*). It is stated that Śiva as *Dakshiṇāmūrtī* should be the object of special adoration by *kinnaras*, *devas* and others.[4] This plaque may, therefore, have been juxtaposed with no. 302(*b*), in the frieze of the temple.

No. 10141, ACI, R. 23, −7′.

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[1] T. A. G. Rao, op. cit., p. 274, footnote, giving *saṁdaṁsa* as the variant form of *saṁdarśana-mudrā*, 'exposition-pose', according to the *Nāṭyaśāstras* and the *Āgamas*.

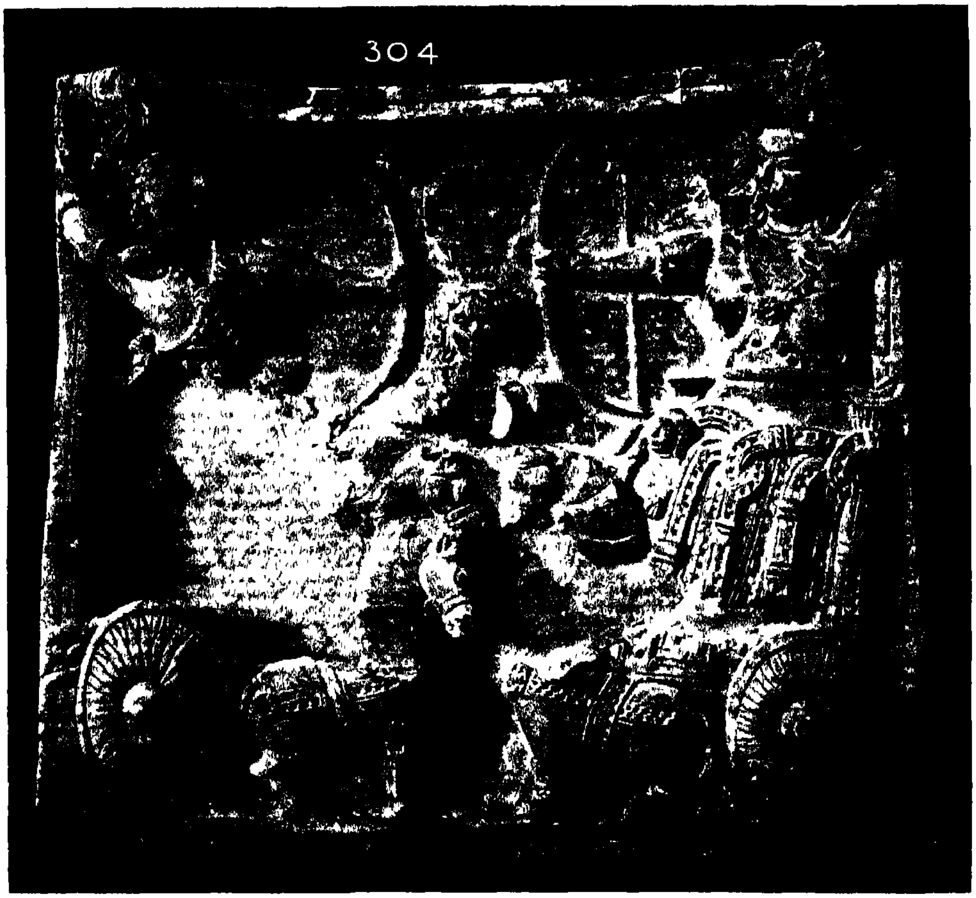
[2] Ibid., pp. 274, 277.

[3] Ibid., p. 148; Appendix, p. 75.

[4] Ibid., II, 277.



Type 28, plaque with Kinnara-mithuna. (Scale of inches.)



Type 28, plaque with two royal warriors. (Height 28 inches.)

304. Plaque (2′ 1·5″×2′ 4″×3·5″) showing two warriors mounted on chariots fighting each other with bow and arrows, both clad in full armour and wearing a *chhannavīra* ornament having a *kīrtimukha* clasp on the chest. Each wears on the head an elaborate turban and carries four quivers of arrows, one behind each shoulder and one on each side of the legs.

The hero on the left has a standard topped with the figure of a small boar (*varāha*), and that on the right has a crescent-topped standard. Two horses are yoked to each chariot and are controlled by a driver seated behind (visible on the chariot on right side). In between the fighters is a drummer (*dundubhika*) whose facial type and attitude is similar to that of the drummer on no. 265.

The scene of battle between two warriors, the small figure of a boar and the provenance of the plaque in a Śiva temple might suggest its identification with the *Kirātārjunīya* story in which Śiva as a wild hunter had to take up arms against Arjuna to establish his right to a boar. That view, however, does not appear to be tenable in the light of a detailed examination of the figures on the plaque. The dress of the two combatants mounted on chariots shows them to be royal personages. The boar formed the crest of the royal dynasty of the Chālukyas which made their flag known as *pālidhvaja*. Vinayāditya Satyāśraya is said to have won this decoration after subduing a northern king and reducing a Ceylonese contemporary to the rank of a tributary.[1] The warrior with the boar-standard may on this basis be identified as a Chālukya ruler, either Vinayāditya Satyāśraya himself (A.D. 688–695), or his grandfather Pulakeśin II (A.D. 608–642), whose successful resistance against Harsha, king of North India, was a well-known event in the seventh century. Ahichchhatrā was under the direct influence of Harsha from his capital at Kanauj, and it is possible that the contest between Harsha and Pulakeśin supplied the theme of representation for this terracotta panel. Its occurrence in the ruins of a Śiva temple cannot, however, be explained in the present state of our information. Perhaps the final extension and renovation of the Śiva temple on site ACI was undertaken after that event about the middle of the seventh century at the instance of Harsha, whose devotion to Śiva is recorded both by Bāṇabhaṭṭa and Yuan Chwang. According to the former, the outstanding events in the king's life were made the subject of popular representation.[2]

No. 10061, ACI, R. 57, −14½′.

GROUP X. CULT-IMAGES

Type 29. Multi-headed cult images

A group of about forty clay idols was found lying in fragments on a platform built against the city-wall in the south-east corner of plot ACV. With the exception of two, viz. a head of a large figure wearing a foliated *mukuṭa* and another headless figure seated majestically on a raised seat in the manner of Kushāṇa king Vema Takshama, all are female figures and have the following features:—

(i) Most of them have three heads arranged frontally in a row except no. 310(*f*) of which the left head faces at an angle, the corresponding right head being lost. Nos. 308 and 308(*a*)*[3] have only one head and are in good preservation.

(ii) All figures have two arms only, bent at the elbow, and the hands are placed on the knees, the left one generally holding a cup (preserved in numerous specimens), and the right one an elongated object tapering below which is clear in no. 310(*a*)*, and might be either the purse or the mongoose (here held in the left hand) associated with Kubera. The right hand of no. 309 shows a hollow groove in which the purse or mongoose was held.

(iii) The association of the female figures with a cult-goddess presiding over child-birth and fertility is suggested by some specimens holding a child. In no. 309(*j*)*, with three heads, the child is seated on the left thigh and clasps the mother near her breast.

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[1] V. R. Ramachandra Dikshitar, *War in Ancient India* (1944), p. 375. See also *Epigraphia Indica*, V, 201, the Vakkaleri plates of Kīrtivarman II.

[2] *Antaḥpurikā-jana-prastuta-narapati-charita-viḍambana-krīḍā, Kādambarī*, p. 89.

[3] Numbers marked with an asterisk are not illustrated.

In no. 309(*i*), the child is squatting with its legs stretched on the pedestal between the feet of its mother. Its hands and feet are undigitated, body roughly worked up, and eyes indicated by punched circlets. In no. 309(*j*)* remnants of the appliqué legs and feet of the child are seen under the mother's left breast.

(iv) In all cases breasts are prominently indicated and have pointed nipples.

(v) The drapery consists of skirts (*lañhgā*) falling below the knees, in some cases bearing vertical stripes. It was fastened at the waist by a cord (*nāṛā*) falling nearly to the level of the feet in a conspicuous manner (cf. no. 310(*b*)* and 310(*c*)*). In no. 309(*a*)* this cord is richly embroidered and in no. 310(*b*)* it is indicated round the waist and in front by incised lines.

Signs of a bodice on the bust and breasts are not so clear, but probably it was worn to a little above the navel.

(vi) The ornaments comprise ear-rings, a torque, a necklace falling between the breasts, a medallion in front of the breasts, numerous bangles on the arms and wrists and single anklets. No. 308(*b*)* shows a prominent *channavīra*.

(vii) The style of hair shows two noteworthy features. First, it is combed backwards and gathered in a single or double ridge projecting above or at the back of the forehead. Sometimes loose strands continue on the back and are indicated by incised lines. Secondly, two plaited locks descend from the head and fall loosely on the shoulders as in no. 308(*a*).* In no. 309(*a*)* there is an elaborate mural crown with two side-rosettes and falling strands.

(viii) The figures are hand-modelled with free use of applied parts, only the face being cast from a mould. On a wheel-turned hollow cylindrical base as high as the knees, the hollow bust was worked up and then the head was joined to it. Usually the head ends in a tenon which was inserted into the hollow bust; this can be seen through the tubular bust from the other end. This technique of manufacture is the same as that of the hollow cylindrical figures of Type 22, Sub-type (vi), for which a period *c.* A.D. 550–750 is indicated.

(ix) The clay is coarse with a profuse mixture of rice-husk, and there are traces of red colour-wash on some specimens.

(x) The style of the figures is bold, marked by vigorous expression. There is no attempt to render finer details; the modeller has adopted bold relief as the principal means of conveying emphasis.

(xi) The face shows a prominent nose almost in the same plane as the receding forehead and the nostrils are invariably indicated by deep holes. The eyes are of the form of petals enclosed by deep lines and show pupils indicated by round holes. The cheek bones are high and the contour of the face tapers towards a double heavy chin. By their appearance, the figures are distinguished from pure Indian female types of the Kushāṇa or Gupta period.

The images were found in association with about half a dozen figures of the goddess Mahishāsuramardinī. It appears that the platform was being used as a shrine of the Mother Goddesses or *mātṛi-bhavana*, as it is called by Bāṇabhaṭṭa, where different female tutelary deities worshipped by the village people were installed together at one place.

The three heads, an unusual feature, cannot be connected with other known specimens, nor do literary texts throw light on it.[1] As the figures hold a cup and a purse-like object and are often associated with a child, the goddess appears to be a Brahmanical counterpart of the Buddhist Hāritī. The front three heads permit the inference of a similar row at the back omitted in a frontal view. As such the goddess can be identified with Shashṭhī

[1] In a passage of the *Vishṇudharmottara Purāṇa*, Chāmuṇḍā is called *āntra-mukhā* (*sic* !), for which there is the variant reading *trimukhī*, meaning 'three-headed'. The present figures, however, are not emaciated as required by the same text (III, lxxiii, 29).

who was widely worshipped as the presiding goddess of child-birth in the Gupta and post-Gupta periods. On the coins of the Yaudheyas we find the representation of the goddess Shashṭhī with a panel of six heads arranged in two superimposed rows.[1] This style of the superimposed heads was prevalent in the Kushāṇa period, e.g. in the case of Brahmā,[2] Śiva and Kārttikeya [3] figures. Later it seems to have been dropped, as the convention of portraying figures in the round, so common in Kushāṇa art, with its inconvenient corollary of showing all the faces of the multi-headed figures, was replaced by an emphasis on the frontal pose in the art of the Gupta period. The upper row of three heads in the present figures also, in case they were intended to portray Shashṭhī, seems to have been omitted for the same reason.

305. Headless male figure (1′ 1·25″; dia. 7″) seated majestically on a high cylindrical pedestal with legs hanging down. The pedestal was wheel-turned and a base-plate was added for the feet. The posture is similar to that of the Kushāṇa emperor Vema Takshama in the Mathurā museum. The figure is wearing a knee-length striped tunic fastened at the waist, a scarf passing from the left shoulder across the chest to the right armpit, a short necklace of flattened beads, and bangles on the upper arms, which are adorned by two pear-shaped appliqué ornaments, perhaps marking embroidered decorations. The figure was found occupying a predominantly central position in the midst of a group of female figurines, with which it seems to have been connected. Each hand was placed on the knee as in the case of the female figurines. The right hand held an elongated tapering object, not distinct, and the left, now broken, probably held a bowl like that in the female figurines.

No. 6586 (1), ACV.

306. Male head hollow inside (10″) wearing a projecting crown fastened by a fillet on the forehead and adorned with a foliated rosette and a boss, with petalled flowers on the sides. The back of the head and nape are covered with embroidered cloth, concealing strands of falling hair. This detached head was found touching the neck of the seated male figure in a tilted position, but is disproportionate to it in size.

No. 6586(7), ACV.

307. Female figure with one head (11″), seated in *bhadrāsana* on a high round seat. An elaborate diadem on the head with a raised wall in front flanked by two flowers and a conical projection behind. A lock of hair falls on each shoulder. On the right cheek is a beautiful leaf-impression from a stamp. A round *padaka* ornament hangs from the neck and another pendant ornament is seen below the breasts. She wears numerous bangles on the arms. The left hand on the knee holds a cup. The strip of the fastening-cord of the skirt falls between the legs and is decorated with three vertical bands, consisting of punched circlets and pricked holes, the former probably showing stitched glass-pieces and the latter either seed-pearls or tiny glass beads called *pota*. A threaded ring of small beads is shown in the left ear. This figure was found on the proper right side of the big male figure (no. 305). Traces of red paint.

No. 6586(21), ACV.

(*a*) Female figure (12·25″) with one head, seated on a round seat. The hair is arranged in a ridge above the forehead with two free locks falling on the shoulders. She wears three rings in each cloven ear-lobe, a torque, a necklace and skirt marked by lines of folds and notched designs. An appliqué child, whose right hand and two feet are still preserved, clung to the left breast. Although

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[1] V. S. Agrawala, 'Goddess Shashṭhī on the Yaudheya Coins', *Journal of the Numismatic Society of India*, V (1943), pt. 2, p. 1, fig. 2. See also J. Allan, *Coins of Ancient India* (London, 1936), p. 272, Class 3, Var. c, pl. XL, 10.

[2] Cf. Brahmā figures nos. 382 and 2134 in the Mathurā museum; see V. S. Agrawala, 'Brahmanical Images in Mathurā', *Journal of the India Society of Oriental Art*, V (1937), p. 118.

[3] *Journal of the Numismatic Society of India*, V, pt. 2, fig. 2.

with a single head, there is no doubt that the figure also belongs to the same category as the three-headed mothers holding a child.

No. 6586(16), ACV.

308. Female figure (12″) with three heads, elongated face, plump cheeks and heavy chin. She has a single indented ridge above the head, a torque below neck, a band at the narrow waist-line, and low pointed breasts. In the right fist is a round vertical hole to hold an object, now lost.

No. 6586(20), ACV.

(*a*) Female figure (10″) with three heads, now broken, a child in left arm touching breast, a cup in left hand on knee and an indistinct object in right hand. The skirt falling below the knees has stripes on front and back. Elongated anklet (*pādakaṭaka*). Long broad scarf with indented marks on both shoulders.

No. 6586(14), ACV.

(*b*) Three-headed female figure (10·25″) wearing a *chhannavīra* ornament knotted between breasts and passing on shoulders and under armpits, and striped skirts. The figure holds a mongoose-like object in the left hand, placed on the knee.

No. 6586(13), ACV.

(*c*) Three-headed female figure (9·5″) with hair arranged on the heads in a double ridge marked by angular lines with small tubular punches between them. On the left cheek are small holes probably indicating tattoo marks. The end of the fastening cord of the skirts falls between the legs. The long tenon of the middle head is visible from the opening at the base.

No. 6586(9), ACV.

(*d*) Female figure as above with three-heads, defaced.

No. 6586(10), ACV.

(*e*) Female figure (11″) of which only the central head is preserved. Traces of scarf on left shoulder. Groove in left hand to hold an elongated object.

No. 6586(15), ACV.

(*f*) Female figure (9·5″) as above, with single long torque, hair falling on the back and knotted with ribbon, and front fold of the lower garment shown prominently by three grooves.

No. 6586(11), ACV.

(*g*) Three-headed female figure (10″), with a cup in the left hand; the frontal end of the skirt is shown spread between the knees.

No. 6586(19), ACV.

(*h*) Three-headed female figure (12″) with the legs and the arms of the clasping babe still visible. She is wearing a *padaka* ornament and a torque. The skirt-fastening cord, also shown on the back, falls as a fold in front. The elaborate coiffure consists of two side-plaits tied in a loop at the nape, the rest of the hair being treated in a fan-like design and fastened at the base by a ribbon.

No. 6586(6), ACV.

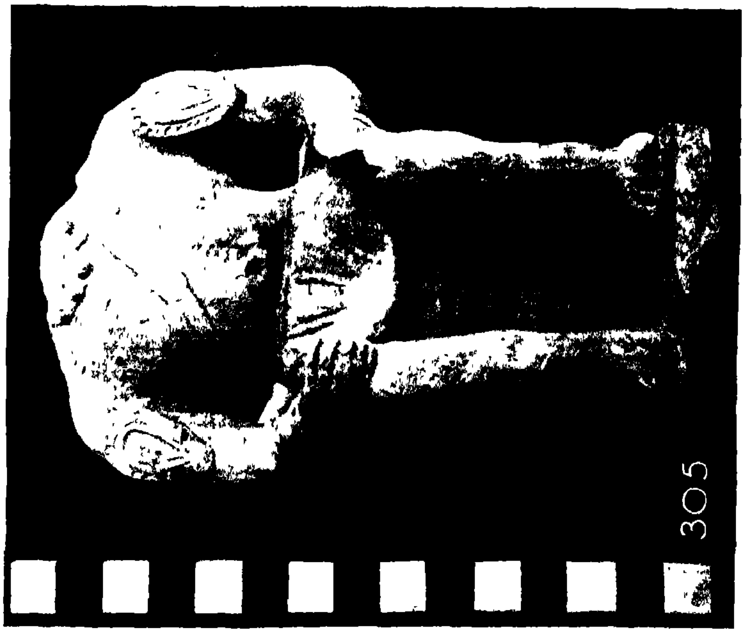
(*i*) Three-headed female figure (8″) with a child squatting on the base between the legs.

No. 6586(26), ACV.

(*j*) Three-headed female figure (10″), holding a purse and a child which clings under the left breast.

No. 6586(30), ACV.

PLATE LXVII

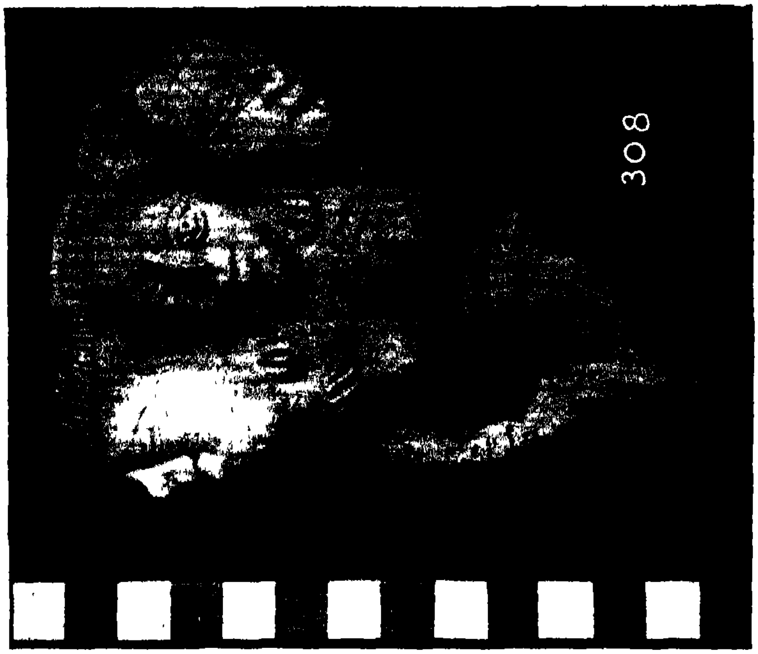


A. *Type 29, figure of a male deity.* (Scale of inches.)

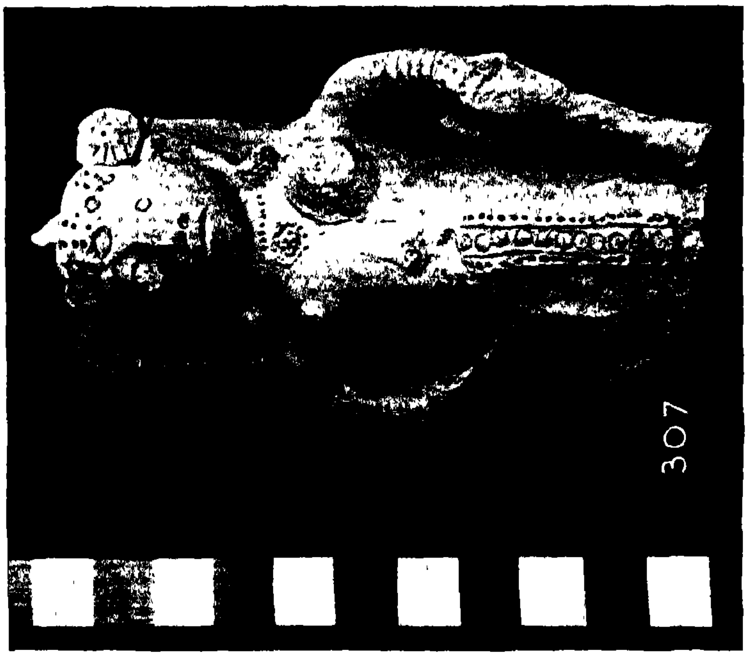


B. *Type 29, head of a male deity*

To face plate LXIX



B. *Type 29, three-headed cult-image.* (Scale of inches.)

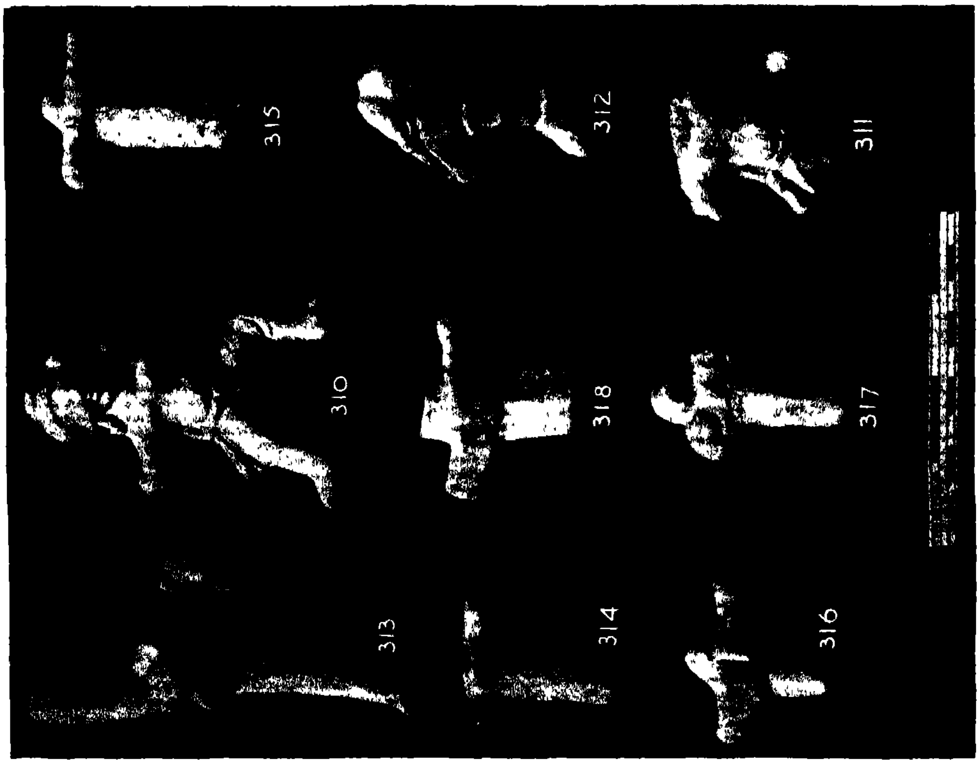


A. *Type 29, cult-image.* (Scale of inches.)

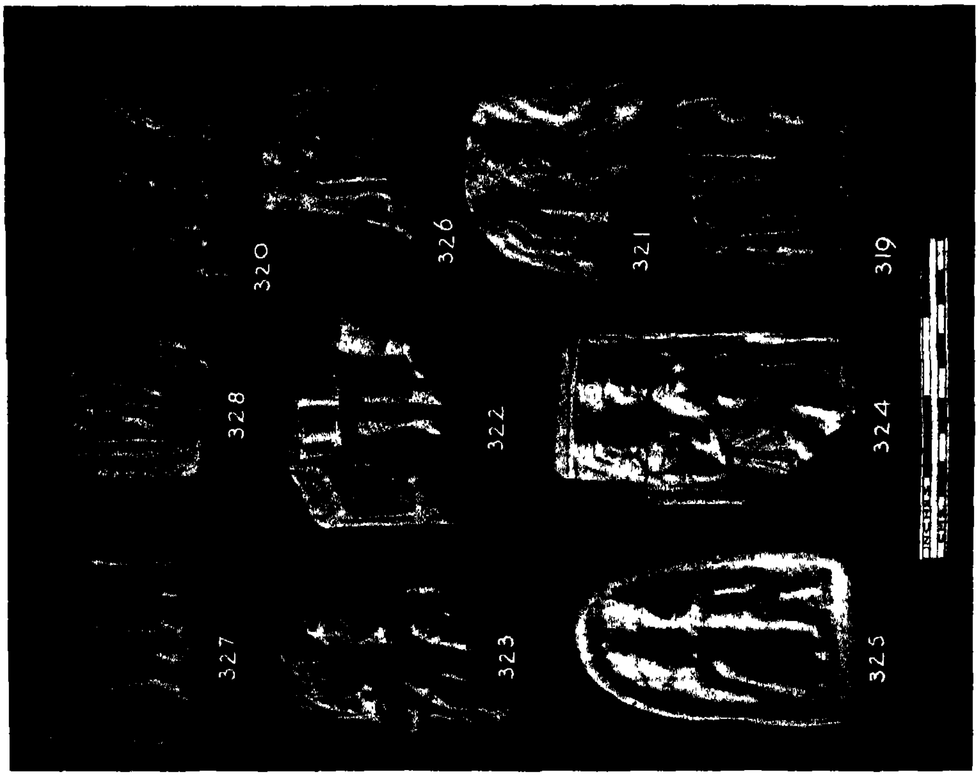


Type 29, three-headed cult-image.

To face page 175



A. *310–313, Type 30, figures of Mallas; 314–318, Type 31, crude figurines*



B. *319–322, Type 32, thin plaques with deities; 323–328, Type 33, Saṭṭī-Saṭṭā plaques*

(*k*) Three-headed female figure (9″), wearing skirts ridged half-way between knee and ankle, numerous bangles on the upper arm and wrist and a broad indented scarf passing across the breast.

No. 6586(12), ACV.

(*l*) Three-headed female figure (7″), wearing a medallion, a pearl-necklace indicated by round circlets and an ear-pendant of three pearls. The hair is combed backwards and carried on the back. The skirt is of short length falling to the knees.

No. 6586(17), ACV.

309. Three-headed female figure (5·5″) with a torque round each neck, bodice on chest revealing the breasts, and a prominent tenon below the middle head.

No. 6586(8), ACV.

(*a*) Female figure with three heads (6″) each wearing a *padaka* pendant from the neck. Defaced.

No. 6586(37), ACV.

(*b*) Female figure (5·25″) showing portion below waist and the *sūtra-naddha* falling between the legs.

No. 6586(2), ACV.

(*c*) Female figure (6·25″) as above, showing traces of the legs of the clinging baby, necklace and bodice knotted in front, a scarf passing across the breast and back, and the tail of a mongoose-like object in the right hand.

No. 6586(3), ACV.

(*d*) Female figure (6·25″) without heads, in poor preservation.

No. 6586(18), ACV.

(*e*) Female figure (6·25″) as above, with a prominent cord hanging between legs.

No. 6586(4), ACV.

(*f*) Female figure (10·5″) with three heads, one in front, the left shown sideways and the right lost.

No. 6586(5), ACV.

(*g*) Female figure (6·5″) as above wearing a *padaka*, a twisted pearl necklace, a pair of studded bangles on upper arm, three wristlets, and prominent anklets (*nūpuras*).

No. 6586(27), ACV.

(*h*) Female figure (6″) as above, having a small baby in the left arm.

No. 6586(25), ACV.

(*i*) Right arm and leg of a similar figure (6·5″), holding in the right hand an elongated object tapering towards the tail.

No. 6586(37), ACV.

(*j*) Fragment of a female figure (6·25″) with a pearl-studded band on the breasts.

No. 6586(28), ACV.

(*k*) Bust of a female figure (4″) with baby in left arm clinging to breast, a trefoil torque and a band round the waist.

No. 6586(39), ACV.

(*l*) Head (3·75″) of a female figure as above, with prominent hair, diamond-eyes and broad nose. Hollow at the back and pressed in a mould.

No. 6586(30), ACV.

GROUP XI: MISCELLANEOUS LATE FIGURES

TYPE 30. MALLAS (STRATUM I: A.D. 850-1100)

A group of male figures in violent action, wearing tight *kaupīna* fastened round the loins and tucked in between the legs, seems to represent the Malla type. Such of them as have the right arm raised as if to deliver a blow may be those of pugilists (*maushṭika*). The right leg is thrust out to the side, and the left, bent at the knee, is pushed to the other side. This posture of the two spread-out legs is also seen in the figures of pugilists from Seleucia.[1] The legs are dwarfish and the feet without toes. Of the five figures four come from ACIII and belong to Stratum I. The type, therefore, may be assigned provisionally to the ninth to tenth centuries, although further evidence for dating seems still to be required.

310. Male figure in violent action (3·75″). The right arm is extended from the shoulder and then raised as if to deliver a blow. The left arm and hand now broken was placed on the knee. The right leg is pushed to the side, and the left bent at the knee to the other side as if in a jumping posture. A tight loin-cloth (*kaupīna*) is worn round the hips and thighs and secured by a belt fastened on the right side. From the round clasp in the centre issues a band to be tucked on the back. The figure wears a double string round the neck, a ring and pendant in ears, and a turban with a topknot on the head, and has a smiling face. The whole attitude of the figure is that assumed in the act of balancing and throwing a heavy ball with the right hand. Hemachandra (twelfth century), who reflects the cultural background of the period covered by Stratum I, mentions a boyish game played by throwing heavy stone-balls called *giriguḍa*.[2]

No. 1174, ACIII, KX/F6d, −39′; St. I: A.D. 850–1100.

311. Torso (2·5″) of a figure with the same pose and dress as above. On the back are traces of a third leg for support, a feature discernible in nos. 310 and 313 also.

No. 1003, ACIII, KX/F3a, −30·2′; St. I.

312. Fragment (3″) showing the right leg of a figure similar to above.

No. 1304, ACIII, KX/F6e, −40′; St. I.

(*a*) Fragment (2·6″) of the left leg of a similar figure.

No. 1173(*a*), ACIII, KX/F2g, −38½′; St. I.

313. Fragment (4·75″) showing the right arm and leg of a similar figure, but with the hands placed on the thigh.

No. 6033, ACII, −54′.

TYPE 31. DAGGER-SHAPED HUMAN FIGURINES (STRATUM I: A.D. 850–1100)

The type, represented by ten specimens, shows a very crude human figure. A roll of clay which is flat on the back is roughly modelled in human form. The lower portion is an

[1] *Figurines from Seleucia*, nos. 421, 422; pl. XXIX, figs. 208, 209, and 211.

[2] *Abhidhānachintāmaṇi*, III, 353.

elongated peg disproportionate to the small head and the projecting arms. In two typical specimens the flexed arms are turned inward beating a small drum in the same manner as the drummers in the musician type of the Kushāṇa period. Almost all the specimens come from ACIII and in cases of recorded level they uniformly belong to Stratum I (A.D. 850–1100). A noteworthy feature of no. 318 is the winglike appearance of the two hands.

314. Crude figurine (1·9″) with stumpy arms and dwarfish head surmounting a pillar-like bust.

No. 1254, ACIII, KX/F5d, –40′; St. I: A.D. 850-1100.

315. Same as above (2·6″). A collection of more than 25 similar figurines was discovered at this place.

No. 3727, ACIII, KX/F3b, –46′.

316. Crude figure as above (2·8″).

No. 3679, ACIII, –42′.

317. Crude figurine with flexed arms forming volutes.

No. 1473, ACIII, KX/F4b.

318. Crude dagger-like figurine (2″) with arms resembling spread-out wings. The projection of the lower body is slightly ridged in the centre.

No. 1344, ACIII, KX/F5d, –42′; St. I.

(*a*) Figurine as above (2·2″).
No. 1236, ACIII, –40′.

(*b*) Figurine as above (2·4″).
No. 1261, ACIII, –39′.

(*c*) Figurine as above (2·2″).
No. 806, ACII, –19′.

TYPE 32. THIN PLAQUES OF DEITIES (STRATUM I: A.D. 850–1100)

From Stratum I comes a group of thin rectangular plaques ending at the top either in a tapering roundel or in a triangle like the sculptured slabs of the Pāla period. They are produced from shallow moulds in extremely low relief. The details of the parts of the body and of the attributes are indistinct. The execution of the figures is crude and the attitude stiff, the *ḍamaru*-like bust being supported on legs of exaggerated length. The general style resembles that of the Tīrthaṅkara images of the late medieval period. In specimen no. 320 an important point to note is the characteristic eye projecting beyond the head, as found in the Jain manuscript paintings.

The subjects are mostly Hindu gods and goddesses, Vishṇu, Mahishāsuramardinī, etc. The plaques seem to have served the purpose of votive offerings at village shrines. Similar plaques are also found made of soft steatite stone with the same low relief and crude workmanship. Both of them represent a popular form of religious worship, enjoying a wide distribution all over North India.

319. Lower portion of a plaque (2·7″×2·8″) of Vishṇu showing a *chakra* on the left side and a mace-bearing attendant on the right.

No. 1142, ACIII, KIX/E6d, –34′; St. I: A.D. 850–1100. The plaque should be assigned to the latest phase of this period, about the eleventh century.

320. Upper portion of a plaque (2·5″×2·4″) of a four-armed Vishṇu holding a mace and a conch in the two extra hands, the normal right hand being held in *abhayamudrā*. Oblique eyes with their exterior ends project beyond the face, although the figure is in a frontal pose. The general style of the body and the long rectangular face is similar to that of medieval Tīrthaṅkara images.

No. 4035, ACIII, −34′; St. I.

321. Upper portion of a plaque (2″) of the four-armed goddess Mahishāsuramardinī, holding a *śakti* in one of the two raised right arms.

No. 121, ACI, KX/B10k, −36′; St. I.

322. Fragmentary plaque (2″×3″) similar to above showing the legs of a Vishṇu figure.

No. 499, ACIII, KX/M8f, −36′; St. I.

TYPE 33. SATTĪ-SATTĀ PLAQUES (STRATUM I: A.D. 850–1100)

A number of small plaques (none exceeding 3·6″ in height) show a man and a woman standing together. The plaques are thin and rectangular, half of them having rounded tops, and all are made from shallow moulds. The male and female figures stand facing, with the left hand of the male and the right hand of the female figure crossed at the back and placed on each other's shoulder. The male figure usually stands on the left but in three cases (no. 325 and two more not illustrated here) the position is reversed. The relief is invariably superficial, with no attention to details of ornaments or drapery. The style is crude, showing similarity with the figures on Satī stones.

The plaques served a votive purpose being used as offerings near Satī stones at places called *Satī-chaurā*. The couples on the Satī pillars in Bundelkhand, where they still abound, are known as Sattī-Sattā, a term which has been adopted to designate the figures of this type.

The stratigraphical evidence supported by the style shows the figures to belong to the advanced medieval period. In fourteen specimens the woman wears a petticoat (*lañhgā*) as was worn by the Rajput women of that age. Out of thirty-seven pieces, thirty-four come from ACIII and are firmly assignable to Stratum I, ninth–eleventh centuries. No. 323 is an exception, showing an earlier style and originating from Stratum III*a* (about the eighth century). One flat plaque (no. 327) rests on two pairs of small legs. No. 328 shows the two figures treated almost in outline.

323. Sattī-Sattā plaque. No. 6733, ACIII, KIX/E10h, −43′; St. III*a*: A.D. 650–750.
324. Sattī-Sattā plaque. No. 1209, ACIII, KX/F6a, −38′; St. I: A.D. 850–1100.
325. Sattī-Sattā plaque. No. 1397, ACIII, KX/F6d, −42′; St. I.
326. Sattī-Sattā plaque. No. 1184, ACIII, KX/A5j, −35′; St. I.
327. Sattī-Sattā plaque. No. 1406, ACIII, KX/F7e, −43′; St. I.
328. [1]Sattī-Sattā plaque. No. 4224, ACIII, KIX/K6e, −42′; St. I.

APPENDIX

A NOTE ON THE STAVARAKA CLOTH.

The pearl-studded tunic worn by the Sun-god (no. 102; fig. 1, 17) and the similar petticoat worn by a dancing female figure (no. 286; fig. 1, 16) show a costly kind of textile, which I have proposed to identify with the *stavaraka* cloth mentioned in the *Harshacharita*. It appears that Bāṇa became acquainted with this fabric after

[1] The photographs illustrating this article were prepared by Mr. Devi Dayal, Photographer of the Central Asian Antiquities Museum.

his introduction to the court of Harsha, since it occurs twice in the *Harshacharita* and is conspicuously absent in his earlier work the *Kādambarī*. The *stavaraka* was a cloth studded with clusters of bright pearls, and kings in the train of Harsha wore tunics made from it: *tāra-muktā-stabakita-stavaraka-vārabāṇa.*[1] The commentator explains it as a kind of cloth; the word has neither previous nor subsequent history and has no intelligible derivation in Sanskrit language. There can be little doubt that the word came directly into Sanskrit from the middle Persian or Pahlavi language of the Sāsānian empire in the time of Harsha. The Pahlavi form *stavra*, meaning thick or strong, is used for cloth in the *Ardā Virāf* referring to 'glorious and thick splendid clothing'.[2] The Pahlavi word *stavra* with the suffix *k*, i.e. *stavrak*, was the original from which the Arabic *istabraq* and the modern Persian *istabrak* are derived. The Arabic word *istabraq* means thick silk brocade.[3] It is used in the Qur'ān 'only in early passages in description of the raiment of the faithful in Paradise. It is one of the few words that have been very generally recognized by the Muslim authorities as a Persian loan-word'.[4]

It is evident from this literary and linguistic evidence that the costly silken fabric known as *stavraka* was originally manufactured in Persia during Sāsānian times, and that during the seventh century it was being imported into Arabia on the west and India on the east. The credit of throwing definite light on the nature of the cloth goes to Bāṇabhaṭṭa, whose reference to it establishes two facts: first, that the *stavaraka* cloth was well-known in the court of Harsha, and, secondly, that it was adorned with clusters of glistening seed-pearls. This latter feature assists us in identifying the fabric on two terracotta figurines from Ahichchhatrā (fig. 1, 16 and 17). The place was situated within the range of direct influence of Harsha's capital at Kanauj and was also the seat of a division (*bhukti*) of his empire. One of the two figures on which the *stavaraka* cloth occurs is that of the Sun-god clad in an Iranian style of tunic, which may naturally have been made of the costly Sāsānian fabric of that name. It should, I think, be possible to detect it on other specimens of Indian terracottas and sculptures.

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[1] *Harshacharita*, text, p. 207; also p. 143. According to the commentator *tāra-muktā* means bright pearls, but the actual design of the fabric as seen on the terracotta figurines shows that *tāra* indicated *sequins*, equivalent of what in Persian was called *sitārā*. Each streak has a sequin below the top-most pearl.

[2] *xvarrah-ōmand u stavr u vaxšak patmōčan, Ardā Virāf*, xiv, 14, p. 164 (Martin Haug's edition, 1872).

[3] F. Steingass, *A Comprehensive Persian-English Dictionary* (London), p. 50.

[4] A. Jeffery, *The Foreign Vocabulary of the Qur'ān* (Gaekward Oriental Series, LXXIX), pp. 58-59.

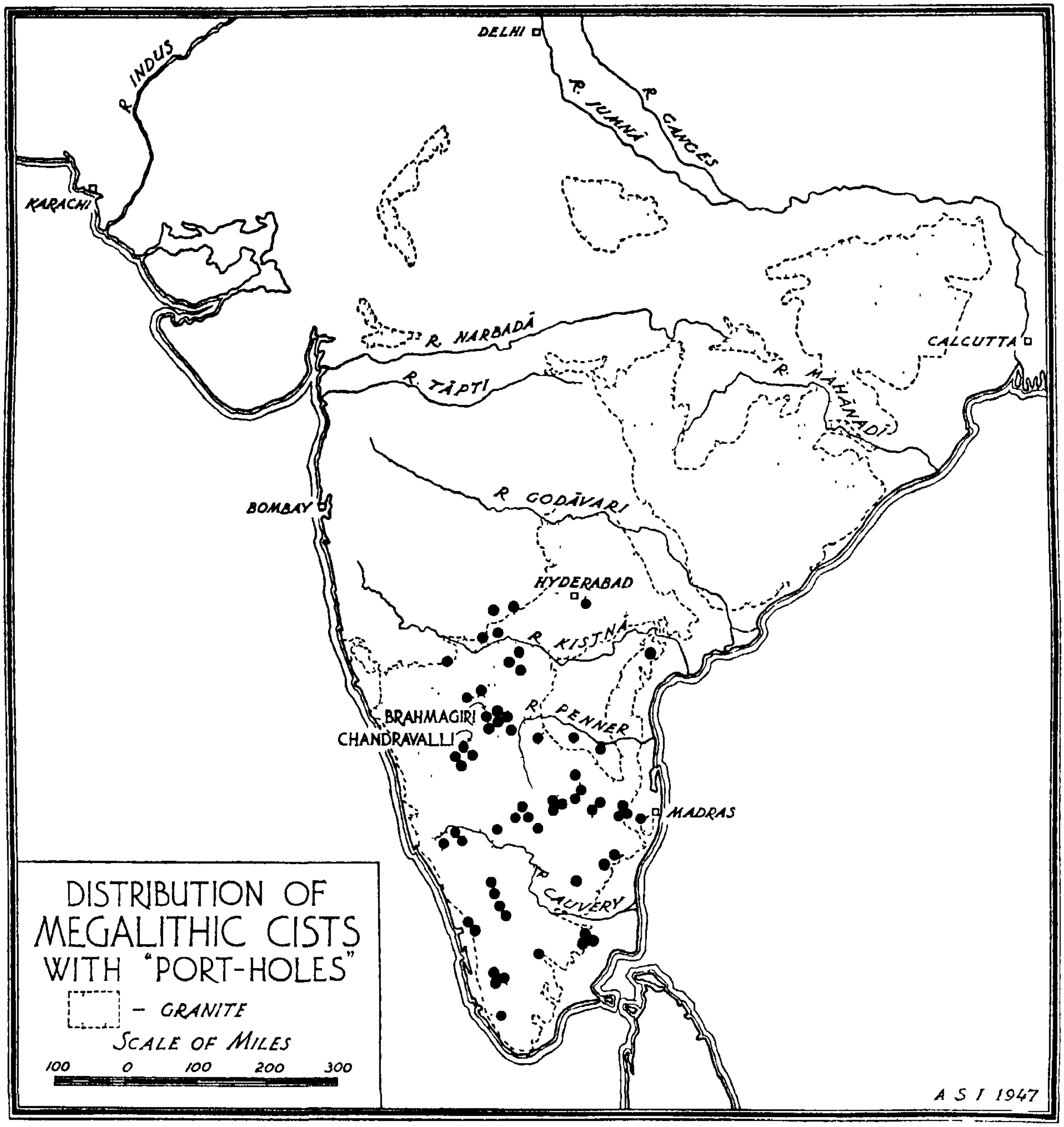


FIG. 1. *(See p. 305.)*

BRAHMAGIRI AND CHANDRAVALLI 1947: MEGALITHIC AND OTHER CULTURES IN THE CHITALDRUG DISTRICT, MYSORE STATE

By R. E. M. Wheeler

The excavations which are the subject of the following report were undertaken as a part of a co-ordinated plan for 'opening up' the archaeology of South India. Until 1945 almost nothing had been done to systematize the civilizations or cultures of the pre-medieval era in the South. The cultural environment of the Buddhist monasteries and sculptured stūpas which had been disclosed had been largely ignored. Megalithic monuments had been ransacked rather than excavated, sometimes with the help of dynamite. Urnfields had been gathered up like rice-crops. Undocumented and heterogeneous collections of stone implements had, in favoured instances, found their way into museums. In very rare cases a town-site had been trenched and a confused mass of material scraped up from it. Meanwhile, theory had been active in inverse ratio to the evidence available. Sumerians, for example, had been derived from South India, or Dravidians from Sumer. The most that could be said for such theories was that they could not be disproved.

In 1945, after systematic search, a site was found near Pondicherry (Arikamedu) where imported objects of known date occurred side by side with, and therefore gave precise chronological definition to, an Indian culture which was otherwise unplaced. At once a firm base was provided for further advance. Enquiry revealed distinctive elements of this newly identified Indian culture on other sites in the Deccan and South India: notably in the Chitaldrug District of northern Mysore, on sites in Hyderabad State, and on others at Amarāvatī in the east and within the southern part of the Bombay Presidency in the west. A coherent archaeological map of South India in the earliest centuries A.D. began to take shape. That shape was still nebulous enough, but through the mist definite objectives began to loom up. By proceeding methodically from the known to the unknown, by exploring a carefully selected series of sites which included recognizable elements with others that were new, a steady progression now for the first time became feasible.

Choice fell first upon the two Chitaldrug sites which are here described. At both these sites distinctive elements of the Arikamedu culture had already been found. At both also, but particularly at Brahmagiri, were other important factors—megalithic tombs, stone axes, microliths, painted pottery—about which no accurate information had hitherto been available. Here at last was, not merely a chance, but a reasonable certainty of securing the desired knowledge. And confident hope has been justified by the event. A clear succession of three main cultures has been determined and, above all, a fixed point established in the chronology of the megalithic tombs which are characteristic of South India and may possibly (though this is not proved) have a significant relationship with similar tombs as far afield as western Asia and Europe.

CONTENTS

PART I.—INTRODUCTORY

THE excavations here described were carried out in March, April and May 1947 by the Archaeological Survey of India in collaboration with the Archaeological Department of Mysore State. Their main objective was the correlation of a typical megalith culture with the culture or successive cultures of an adjacent urban site which had already produced evidence of a definable chronological datum-line. This objective was an important one and requires amplification.

India south of the Vindhyas—the Deccan or Peninsular India—has long been known to contain very large numbers of megalithic structures which vary in type but have a common factor in that they consist of unhewn or roughly hewn slabs of stone supplemented, in some instances, by dry-stone walling. Their range in plan, distribution, function and date has never been adequately defined, and it will be several years before the essential ground-survey of them begun by the Archaeological Survey of India in 1944 can approach completion. Meanwhile it may be observed that the dominant type is a large cist, built above or below ground and usually surrounded by a stone circle. Other megalithic monuments include small cists, circles (which sometimes but not always enclose buried

cists), menhirs and alignments. The cists, frequently in large groups, occur mainly on the granite and laterite of the Peninsula but are also found sporadically on the limestone and sandstone of the north-west.[1] Their relationship with other types of megalith in central and north-eastern India is probably negligible, and the unqualified use of the term 'megalith' in the two contexts, however correct, is liable to mislead. C. von Fürer-Haimendorf has reasonably emphasized the essential separateness of the two: the megalithic cists of the south having an Iron Age equipment and western analogies, the megalithic memorial stones, etc., of the centre and the north-east having possibly 'neolithic' associations and an Indonesian or south-east Asian orientation.[2] That occasional overlaps between the two groups should occur in central India is but natural.

With the north-east Indian (or south-east Asian) group we are here no more concerned. The main function of this report is to present evidence which for the first time establishes a fixed chronological point for a representative series of South Indian megalithic tombs, and indicates the method of their use. Discussion of the possible relationship of these tombs with comparable structures elsewhere in Asia, in Europe and perhaps in Africa is reserved for an Appendix (p. 300), which should be read as a supplement to Professor Gordon Childe's paper above (p. 4). For the moment it will suffice to observe that this relationship has been postulated not merely upon a general basic resemblance of the crude megalithic principle in India and the West, but upon a community of specialized details of which the most notable is the 'port-hole' entrance. Indeed, were it not for the wide and formidable disparity in date between the Indian cists and their Western analogues, a significant interrelationship could scarcely be questioned.

To the excavation itself and to the preparation of the report many hands have contributed. Under my general direction, the primary responsibility for the detailed work of organization and supervision in the field and for subsequent analysis of the results fell to Mr. B. B. Lal as officer in charge of the Excavations Branch of the Archaeological Survey of India. With him collaborated an excellent team of supervisors, including Mr. M. N. Deshpande, Mr. A. H. Dani, Mr. V. D. Krishnaswami, Dr. Y. D. Sharma and Mr. B. K. Thapar, with about forty research-students from the Indian universities. The pottery was organized and classified by Mr. S. C. Chandra, and the Chandravalli coins by Mr. Krishna Deva. Special credit is due also to the staff-photographer, Mr. S. G. Tewari; the draftsman, Mr. Raghbir Singh; and the surveyors, Mr. Ballabh Saran, Mr. K. Ramaswami and Mr. Bhaskaran Nair. Mr. L. Narasimhachar was present throughout as a colleague and as representative of the hospitable Mysore State. Lastly, the French Government seconded to our staff M. and Mme. J. M. Casal from Pondicherry and M. J. P. Trystram from the Délégation Archéologique Française at Kābul, all of whom are now engaged upon archaeological fieldwork in or of close concern to India.

A detailed report on the human bones found during the excavation is being prepared by the Anthropological Survey of India and will be published at a later date.

THE PLANNING OF THE WORK

The method whereby the new evidence was sought and obtained was as follows. In 1945, the Archaeological Survey of India, at Arikamedu near Pondicherry on the Coromandel coast, dated an extensive Indian ceramic industry by its association with imported

[1] For the distribution of megalithic cists with port-holes, see fig. 1 and below, p. 305.

[2] 'The Problem of Megalithic Cultures in Middle India', *Man in India*, XXV (1945), 73ff. I would suggest caution in ascribing even a relative chronological connotation to the term 'neolithic' in this connection. It is likely enough that much of the 'neolithic' of the north-east is contemporary with the Iron Age of the south.

Mediterranean pottery and glass of the first century A.D.[1] The industry included a distinctive type of polished black or black-and-yellow dish bearing on the inside of its base two or three concentric rings of pattern formed by a cogged cylinder or roulette held against the unbaked vessel as it rotated on the potter's wheel. This roulette-pattern is foreign to Indian ceramic and was derived from the imported Mediterranean (Arretine) pottery, to which it is normal. Its first appearance in India is very unlikely to have been earlier than the beginning of the first century A.D., but is certainly not later in origin than the second quarter of that century. Once established, the type lasted at Arikamedu into the second century.

Subsequently to the Arikamedu excavations, I observed at Mysore two or three sherds of identical ware which had been obtained by the State Archaeological Department some years previously from a site in the Chitaldrug District, the northernmost district of Mysore State. The site, known as Chandravalli, 1½ miles south-west of Chitaldrug itself, had also yielded four or five Roman denarii (2 of Augustus, 2 of Tiberius and 1 unidentified) of the first half of the first century A.D.—evidence consistent with that of Arikamedu—together with many potin issues of the Āndhra kingdom less securely dated but belonging mainly to the first two centuries A.D. A distinctive local ware, allegedly from the same general horizon as certain of the Roman coins, had a polished russet-coloured surface with rectilinear white or yellow (often criss-cross) pattern. This yellow-painted ware is also abundant on the Āndhra sites of Māski and Koṇḍāpur as excavated by the Hyderabad State Archaeological Department.[2] On all grounds it was evident that, with useful external contacts in the form of rouletted ware and Roman coins, Chandravalli was capable of producing a representative Deccan culture centring upon the first century A.D.

But that was not all. The late Dr. M. H. Krishna, Director of the Mysore Archaeological Department, had with his colleagues carried his pioneer-work further afield, to the neighbourhood of Siddāpur, 45 miles away to the north-east in the same Chitaldrug District and some 30 miles south of Bellary. There, at the foot of the granite outcrop known as Brahmagiri, in the vicinity of no fewer than three copies of Aśoka's Minor Rock-edict no. 1—the most southerly known point of the Mauryan empire—he had identified a site which must be that of the town of *Isila* mentioned in that edict. With assistance from his colleague, Mr. L. Narasimhachar, he had subsequently carried out trial-excavations not only on the town-site itself but also in certain of the very large number of megalithic cists which fringe it on the plain. The evidence thus obtained has not been published and is not sufficiently documented for detailed analysis, but it included a somewhat poorer[3] representation of the Āndhra culture of Chandravalli, and relics of a culture or cultures associated with polished stone axes and microliths.

Though much remained in doubt, it was evident that here, at Chandravalli and Brahmagiri, were potentialities of high importance. They may be stated as follows:—

(i) Proceeding from the established results of Arikamedu, and with the possibility of support from reliable coin-evidence, it was clear that careful digging at the relatively rich site of Chandravalli would define the local Āndhra culture of the first century A.D.

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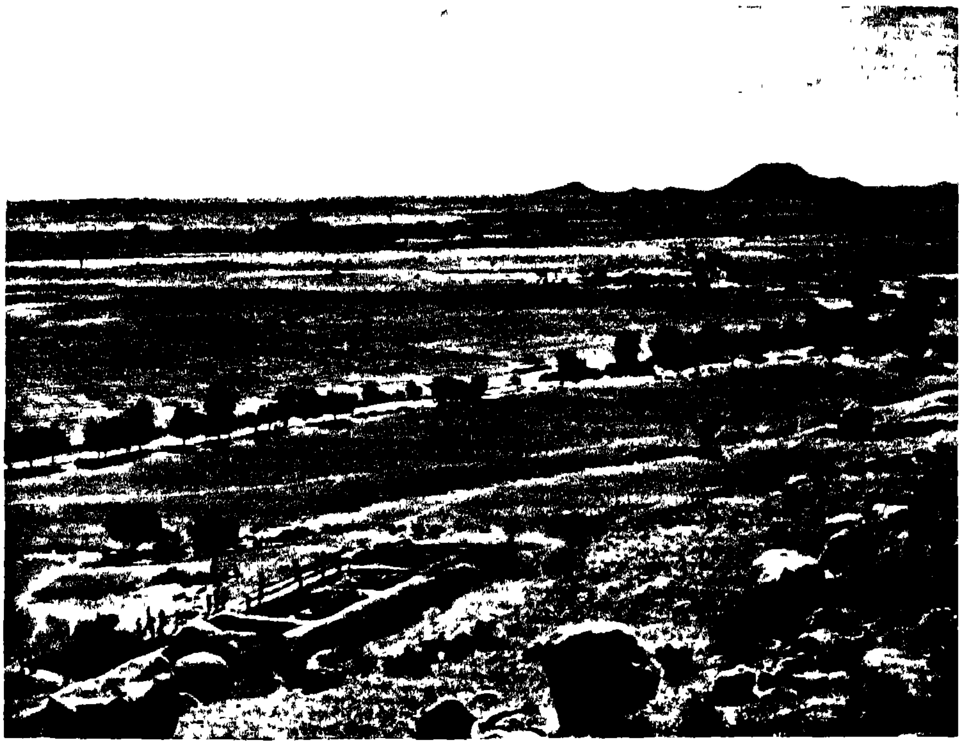
[1] *Ancient India*, no. 2 (1946), pp. 17ff., and particularly pp. 45ff.

[2] Pottery now in the Hyderabad Museum and on the site of Koṇḍāpur. For the distribution of this ware, see below, p. 308.

[3] For example, only one coin (a chance-find) has been picked up at Brahmagiri, whilst at Chandravalli coins are abundant.



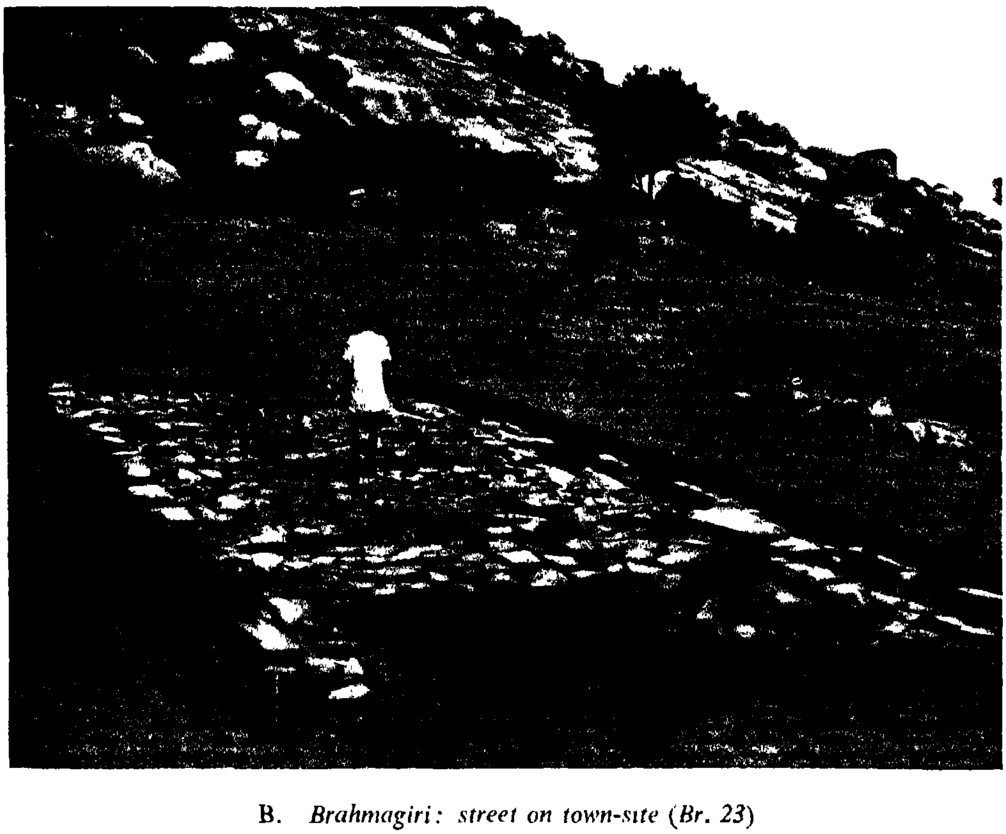
A. *Brahmagiri from the north*



B. *View from Brahmagiri, looking east. Cuttings Br. 21-2 in foreground; site of cists in middle-distance, right*



A. *View from Brahmagiri, looking north. Cuttings Br. 21-3 in foreground*



B. *Brahmagiri: street on town-site (Br. 23)*

(ii) With that information, it would be easy enough to establish a corresponding datum-line at the somewhat poorer but partially contemporary site of Isila (Brahmagiri).

(iii) Having established the Brahmagiri datum-line, deep digging there might be expected to relate to it the other local cultures, represented respectively by the adjacent megalithic tombs and by the stone axes and microliths previously found by Dr. Krishna.

Amongst these various objectives, it was the presence of the megaliths at Brahmagiri that determined the present undertaking. South India is eminently a land of temples, but even the temples are there outnumbered by these ancient tombs. And we know scarcely anything about them. A thousand megalithic cists might be excavated with the utmost care without any significant addition to our knowledge of their chronology. Only by placing their culture in a related culture-sequence, such as an adjacent town-site could alone be expected to provide, was it possible to ensure a substantive advance of knowledge. Brahmagiri provided the desired coincidence. With its dated, or at any rate datable, 'Āndhra' culture and its vast field of megaliths, it appeared to supply all the necessary factors for an initial scientific study of the Indian megalithic problem. And, in anticipation, I may say at once that it yielded clear and positive evidence in an even fuller measure than we could have dared to expect.

The following report is divided into four main parts: first, a description of the Brahmagiri megaliths and of the general nature of the evidence which they yielded; secondly, an account of the cultures (megalithic and other) identified on the Brahmagiri town-site; thirdly, a note on the cultures established by renewed excavation at Chandravalli; and, fourthly, appendices dealing principally with cultural distributions.

Chronology is discussed below (pp. 200 and 300)

PART II.—BRAHMAGIRI

Brahmagiri is a granite outcrop, rising some 600 feet above the plain, within the Molakālmuru Taluk of the Chitaldrug District in the northern extremity of Mysore State. Of several small villages in the neighbourhood, Siddāpur(a) is the best known from its frequent association in publication with the three adjacent copies of the Minor Rock-edict no. 1, which constitute the most southerly memorial of Aśoka's empire.[1] That the site was in fact near Aśoka's frontier is indicated by the statement in the Edict that it was 'issued . . . . . (that even) my borderers may know (it)'; and the instructions are directed to 'the Mahāmātras at Isila', which may therefore be taken as the name of the ancient township hereabouts.

It was in a deliberate search for the Isila of Aśoka that Dr. M. H. Krishna identified it in the site which is the main subject of the present report. A clear general account of the local topography was prepared by him in 1940,[2] and excavations were carried out by the Mysore Archaeological Department on the site in 1942.[3] We need not agree either with Dr. Krishna's provisional chronology or with his assessment of the culture-sequence

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[1] E. Hultzsch, *Corpus Inscriptionum Indicarum, I, Inscriptions of Aśoka* (Oxford, 1925), pp. xxvi and 175ff. The interpretation of the latter part of the inscription is doubtful; see alternative versions adopted by V. A. Smith, *Aśoka* (Oxford, 1920), p. 152, and D. R. Bhandarkar, *Aśoka* (Calcutta, 1925), p. 329; and cf. E. Senart, 'The Inscriptions of Piyadasi', *Indian Antiquary*, XXI (Bombay, 1892), 62ff.; and V. A. Smith and F. W. Thomas, ibid., 1908, 3ff.

[2] *Mysore Arch. Dept. An. Rep. for 1940* (Mysore, 1941), pp. 63ff.

[3] Ibid. for 1942 (Mysore, 1943), pp. 100ff.

to appreciate the high value of his pioneer-work both here and at Chandravalli (above, p. 184). All that was achieved in 1947 was based upon his previous revelation of the potentialities of the two sites.

Without a recapitulation of the whole of Dr. Krishna's ground-survey, the salient features of the area with which this report is immediately concerned may be noted (pls. LXXI-LXXVI). The northern slopes of Brahmagiri, largely covered by a tumbled mass of granite boulders, bear extensive signs of ancient occupation in the form of pot-sherds, fragmentary walls and remains of small terraced platforms roughly revetted with dry-stone walling. It is to be presumed that two thousand years ago more earth remained amongst the boulders than at the present day, and that much evidence of this part of Isila has been washed away. But at all times the main area of occupation must have lain, as surface-remains and excavation combine to indicate, along the gentle slope which forms the transition from the hill to the plain. Here a long strip some 200 yards in width is a mass of occupation-earth and sherds. Beyond it, the fringe of the plain itself, to a depth of 500 yards or more and a length of about a mile, forms what must once have been an almost continuous belt of megalithic structures, mostly cist-tombs. Many of these have been removed by agriculturists, but some hundreds still survive in intermittent patches.

In the midst of the zone of occupation stands the great boulder which bears on its upper surface the best-preserved of the three copies of the Edict, the so-called Brahmagiri version. A furlong to the south-east, up the hillside, is a small brick chaitya, excavated in 1942 and again in 1947—a sadly ruined structure (fig. 2) but nevertheless the most

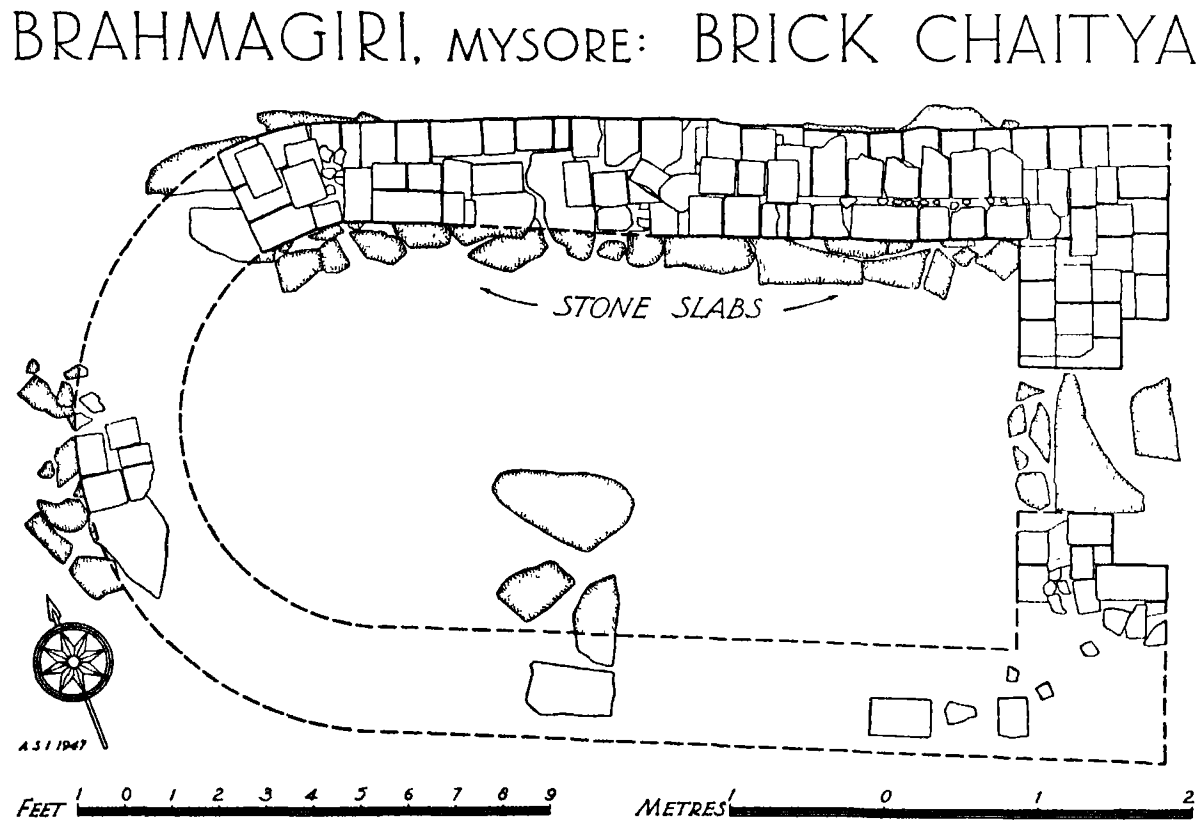
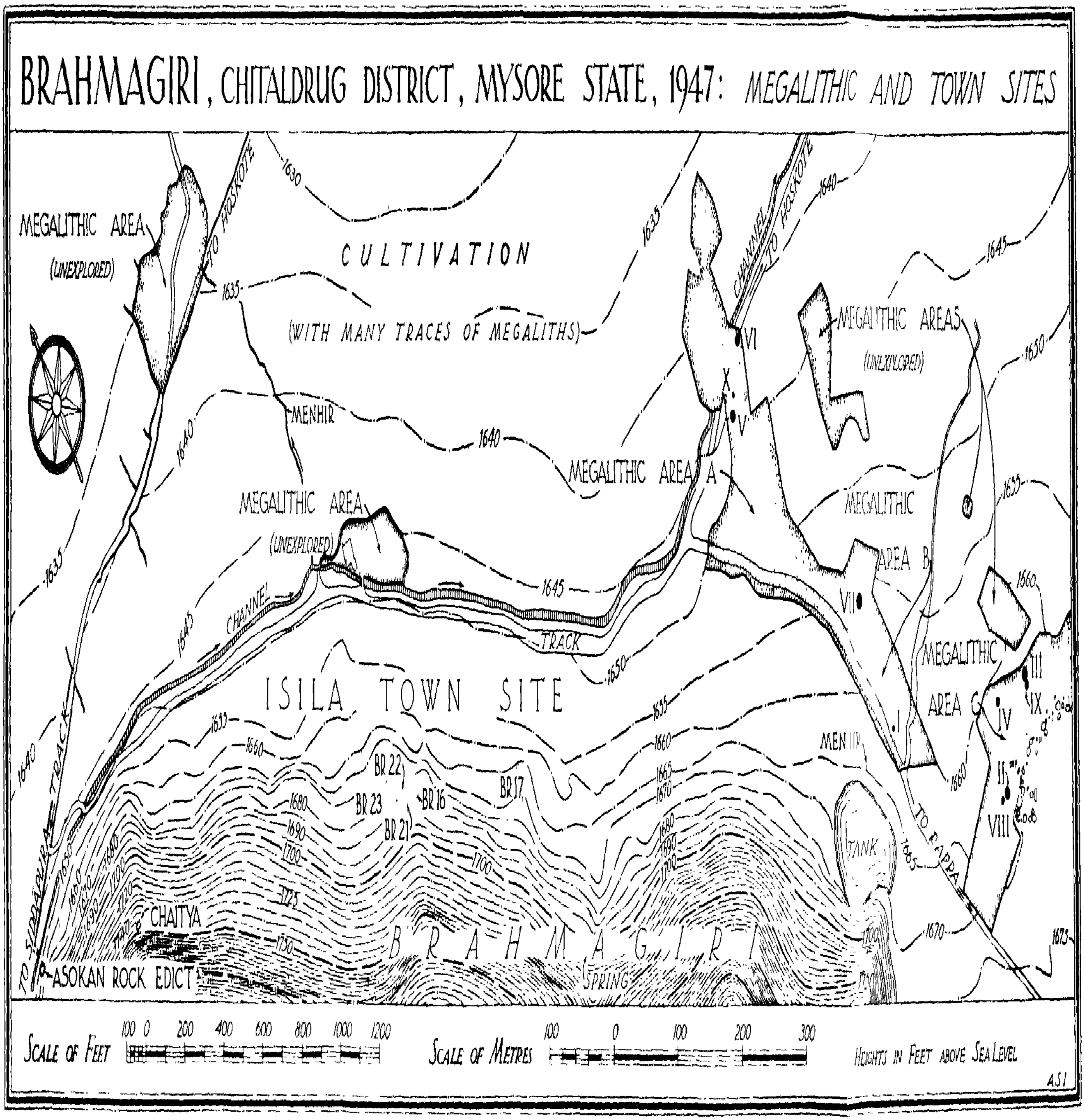


FIG. 2


BRAHMAGIRI, CHITALDRUG DISTRICT, MYSORE STATE, 1947: MEGALITHIC AND TOWN SITES
MEGALITHIC AREA (UNEXPLORED)
TO HOSKOTE
CULTIVATION
(WITH MANY TRACES OF MEGALITHS)
CHANNEL
MEGALITHIC AREAS (UNEXPLORED)
MENHIR
MEGALITHIC AREA A
MEGALITHIC AREA (UNEXPLORED)
MEGALITHIC AREA B
TRACK
MEGALITHIC AREA C
ISILA TOWN SITE
MENHIR
BR 22
BR 23
BR 16
BR 21
BR 17
TANK
TO RAPPA
TO SIDDAPURA
CHAITYA
BRAHMAGIRI
ASOKAN ROCK EDICT
SPRING
SCALE OF FEET
SCALE OF METRES
HEIGHTS IN FEET ABOVE SEA LEVEL
A.S.I.

The top of the cist and the greater part of the surrounding wall or walls usually rose some 3 feet above the old ground-surface, and the interval between them was heaped up with earth and small stones, forming an enclosed cairn. There is no evidence that the whole structure was so covered, and we may suppose that the original appearance of the tombs was that of a massive capstone crowning a low cairn, usually within a circle of boulders or orthostats.

In addition to cists of the normal size described above, there were numbers of ancillary small cists (pp. 190 and 194). Their shallowness and proximity to the surface militated against the general survival of their contents, but certain of them retained one or more small pots, and one included fragments of adult human bone. There was a tendency to group these small cists round a major cist, but the implication can only be guessed.

From the structure of the cists I turn to the evidence as to their usage.

The main deposit of funeral pottery and other objects (ironwork, beads, whorls) lay on, or practically on, the floor-slab. The pots might be as few as six (Megalith V) or as many as sixty-two (Megalith X). Over this deposit a layer of sandy earth some 6 inches in depth intervened between it and the human bones. These consisted either of a collection of long-bones only (Megalith VI) or of long-bones and skulls, which might be as many as six in number (Megalith I). The bones had been excarnated elsewhere, and the manner of their interlocking showed that they had all been introduced at the same moment, like a bundle of faggots. They lay in the centre of the tomb, or somewhat west of the centre—never at the eastern end where, it may be inferred, they were introduced through the 'port-hole' by someone who entered also through it and stood at this point.[1] It is to be assumed that the 'port-hole' was the regular ingress both for offerings and for bones; most of the former were placed there some time before the latter, and it is highly improbable that they were left exposed, without a capstone, during the interval. Furthermore, we may suppose on general grounds that the main structure of the tomb, with its massive covering, was completed before its utilization.

With the bones, a few additional pots might be introduced with secondary offerings. The whole deposit was then deliberately buried in earth inserted through the 'port-hole' and therefore ceasing on a level with the base of the latter—an additional indication that the capstone was already in position. The regular occurrence of a line in the filling at this point makes the inference certain. The 'port-hole' was then closed by its doorslab or slabs and the entrance-passage was walled up. Thereafter, as the monument fell into ruins or was partially destroyed, a miscellaneous accumulation of earth and stones filled the upper part of the cist.

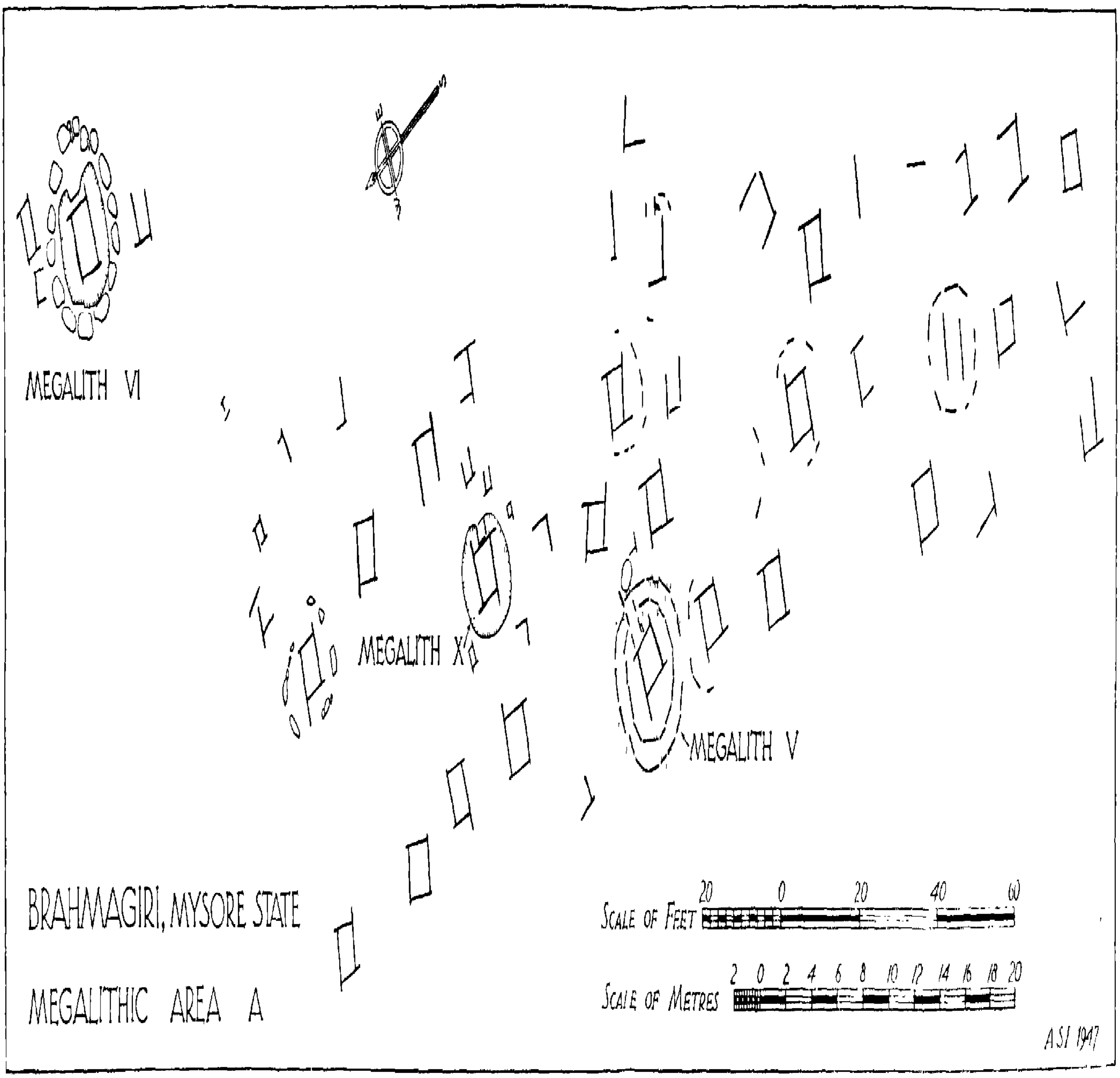
Thus, although these tombs contain the selected bones of more than one individual, they were rarely used on more than one occasion.[2] The usage fell into two parts: the initial insertion of the major part of the offerings, and, perhaps some weeks later, the addition of the collected bones from a temporary repository elsewhere. The 'port-hole' was the functional entry to the tomb, and its careful sealing was the final and definitive moment of the ceremony.

Of the ten megaliths opened this season, nos. I, IV–VI, VIII and X belonged to this class of cist-circles. The building-material throughout was gneissic granite.

Megalith I (pls. LXXVII and LXXVIII A; fig. 3) was a cist, internally 5 feet 1 inch by 3¼ feet at the top and 5½ feet by 3 feet 11 inches at the bottom, with a height of 5 feet 10 inches above the floor-slab. It was built on an anti-clockwise svastika plan, the major axis being 106° magnetic. In the eastern wall of the tomb was a port-hole,

[1] The port-hole opening is not very different in size from the microscopic rectangular doorway of a Toda hut in the Nilgiris at the present day.

[2] Megalith IV (p. 190) may have been used on two occasions.


MEGALITH VI
MEGALITH X
MEGALITH V
BRAHMAGIRI, MYSORE STATE
MEGALITHIC AREA A
SCALE OF FEET
20 0 20 40 60
SCALE OF METRES
2 0 2 4 6 8 10 12 14 16 18 20
A.S.I. 1947

1 foot 8 inches in diameter, approached by a passage or man-hole flanked by vertical slabs. The port-hole had been sealed externally by a double door-slab and a dry-built wall upwards of six courses in height. This wall started from the slab flanking the port-hole to the north, continued completely round the cist and overlapped itself to a length of 3 feet at the eastern end, thus forming an incipient spiral on plan. Between it and the north, west and south flanks of the cist a secondary wall intervened. There was no enclosing circle of blocks or slabs.

The capstone was missing but the interior of the cist was undisturbed. On or practically on the floor-slab lay twenty-four pots and a decayed iron blade (axe?) with an encircling ring (fig. 36, 10). After these deposits had been covered with a layer of sandy earth, a heap of disarticulated bones including six adult skulls and covering an area of 3½ feet by 2 feet was deposited slightly west of the centre of the floor. The cist was then filled up to the level of the base of the port-hole.

A preliminary report from Mr. H. K. Bose, Anthropological Assistant, states that, of the six skulls, three (two adult male and one elderly female) are brachymorphic; and three (adult male and female and a child 12-14 years old) are dolichomorphic.

Close by the cist were the remains of three other cists, including a small one immediately to the north-east. The latter measured 1 foot 5 inches by 10 inches and was 1 foot 2 inches deep. The cover-slab lay alongside. No bones or any other objects save two small potsherds were obtained from it.

Megalith IV (pls. LXXVIII B and LXXIX A; fig. 4). The capstone, 1¼ feet thick and at least 9 feet 7 inches long, had been pulled slightly aside and blasted by modern stone-robbers. Three fragments survived and are reunited on the plan and section. The eastern and northern orthostats had also been broken.

The tomb consisted of a cist 5 feet 7 inches by 4½ feet at the top, nearly the same at the bottom, and 6½ feet in height above the floor-slab. It was built on an anti-clockwise svastika plan, the major axis being 106° 45′ magnetic. In the eastern orthostat was a port-hole, 1 foot 11 inches in diameter, the approach to which was flanked on either side by a short irregular dry-built wall of 3 courses. The port-hole had been closed by a door-slab backed by a *chūnam* (limey earth) filling. The causeway was blocked by a rough granite boulder.

The walls of the cist were retained externally by a composite wall of untrimmed granite boulders and dry-stone walling rising to a maximum of three courses. The tomb was surrounded by a further circle of untrimmed granite boulders, within which a scattering of rubble represented the former cairn.

There had been no regular occupation of the site prior to the construction of the cist.

The blasting of the cover-slab had partially disturbed the stratification inside the cist, but the usual change of soil at the level of the bottom of the port-hole was noted. Immediately on the floor-slab and towards the northern orthostat of the cist lay nine pots representing types C24(4), C24a(1), C24b(2), C28(1) and C30(1) [1]; while in the south-west corner a group of seven pots representing types C24(3), C24a(1), C28(2) and C28b(1), lay huddled one over the other to a height of 1 foot 5 inches.

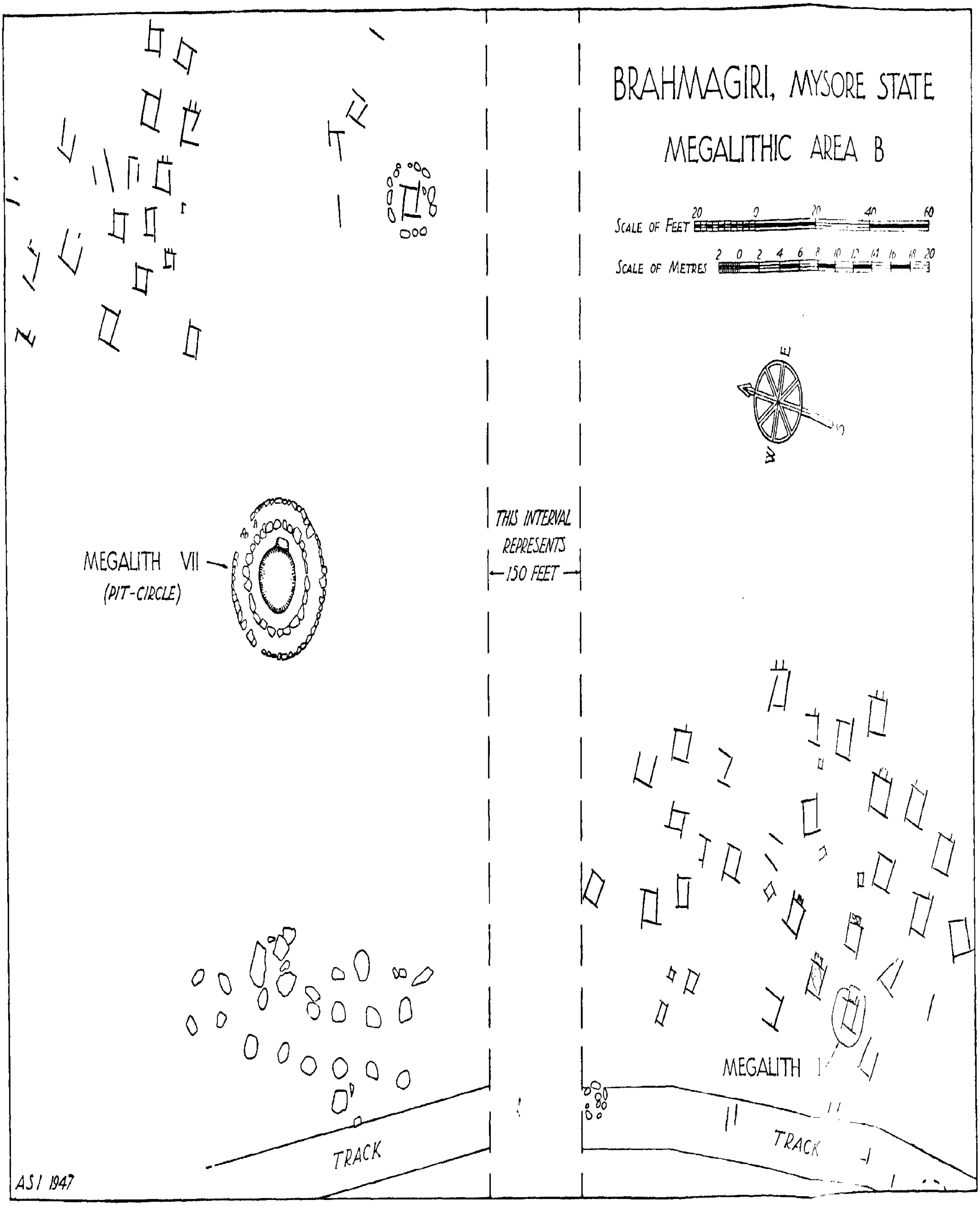
On the floor-slab also lay a fragmentary iron knife with a tang, and a broken iron object of indeterminate shape. Scattered amidst the pots and iron objects were found over forty tiny white beads of magnesite or dolomite, resembling seed-pearls. Partly with and partly above these objects lay the fragments of a few ribs and long bones, and 2 inches higher lay two broken skulls, one against the southern orthostat and the other nearer the western. One of the skulls is of a young adult and is dolichoid.

Near the eastern orthostat and 3 inches above the floor-slab was another group of thirty pots representing types C3(5), C3*a*(2), C3*c*(1), C5(2), C7*d*(1), C8*b*(1), C9(1), C10(2), C12(3), C12*a*(2), C14(1), C18(3), C19(1), C20(1), C22(1), C24(1), C26*a*(1) and C28(1). At a height of 1 foot above the floor and covering an area 2 feet 8 inches by 1 foot 10 inches, slightly west of the centre, lay two skulls, some ribs, and a few long-bones. Towards the east and on a level with these bones were four bowls representing types C8(2) and C7(2), three of them set inside one another, together with a small terracotta ring. An indeterminate fragment of iron lay amidst these pots.

The occurrence of the skeletal remains at two different levels and of the pots in two separate groups suggests that the cist was used on two occasions.

Megalith V (pls. LXXIX B, LXXX, LXXXII A and LXXXVIII) presented two interesting features: the cist was surrounded by two concentric circles of orthostats and the causeway to the port-hole had a flooring of stone-slabs. The cist was built on an anti-clockwise svastika plan, 5 feet by 4 feet 4 inches at the top, 5½ feet by 4 feet 10 inches at the bottom, and 6 feet deep, the major axis being 86° magnetic. In the eastern orthostat was a port-hole 1 foot 5 inches in diameter, approached by a floored passage which was flanked by three orthostats on the northern side and two on the southern. The port-hole had been sealed by a door-slab backed by roughly built

[1] The figure in brackets after each type-symbol indicates the number of examples.


BRAHMAGIRI, MYSORE STATE
MEGALITHIC AREA B
SCALE OF FEET
20 0 20 40 60
SCALE OF METRES
2 0 2 4 6 8 10 12 14 16 18 20
MEGALITH VII
(PIT-CIRCLE)
THIS INTERVAL REPRESENTS 150 FEET
MEGALITH I
TRACK
TRACK
A.S.I 1947

masonry between the first pair of orthostats flanking the passage. The capstone was missing. The tomb was surrounded by two concentric circles of orthostats, the inner circle being interrupted by the entrance-passage, while the outer continued across it. Between the inner circle of orthostats and the tomb was a dry-built stone wall surviving to a height of 7 courses and battered inwards. It was interrupted by the entrance-passage, and was supplemented by a rough subsidiary wall between itself and the north, west and south sides of the cist. A similar stone wall, likewise interrupted by the entrance-passage, intervened between the concentric circles of orthostats; and a further wall, surviving to a maximum height of four courses, surrounded the whole monument save at the entrance-passage, which was blocked successively from inside to outside by the rough stone filling against the door-slab, by the above-mentioned orthostat of the outer circle, and lastly by a granite boulder. The former capstone was represented by a fragment which lay immediately against the southern orthostat of the cist (pl. LXXIX B).

The stratification inside the cist was undisturbed and showed the usual change of soil at the level of the bottom of the port-hole. Immediately on the floor-slab lay six complete pots and fragments of others.[1]

At a height of 8 to 9 inches from the floor lay a collection of disarticulated human bones including two skulls. There were no iron objects.

An important feature of the tomb was the occurrence, in a level prior to the construction of the cist, of three complete pots, all of the 'megalithic' fabric (pl. LXXXVII and fig. 17, 1-3).

Megalith VI (pls. LXXXI, LXXXIII A and LXXXIX) included a cist 7 feet by 4 feet at the top and 7¼ feet by 4 feet 7 inches at the bottom, with a height of 5 feet 8 inches above the floor-slab. It was built on an anti-clockwise svastika plan, the major axis being 96° 30′ magnetic. In the eastern orthostat was a port-hole, 1 foot 11 inches in diameter, sealed externally by a door-slab, which itself was backed by a slab acting as a strut and also by a lump of *chūnam*. The capstone was missing. The cist was surrounded by two dry-built stone walls, the outer of which was of not less than four courses with a height of 1 foot 7 inches. At the eastern end the outer wall turned in on each side of the port-hole to form the entrance.

Outside the wall was a circle of untrimmed granite boulders resting on and partially in the ancient humus. At one point a boulder rested against the stones of the dry-built wall in such a fashion as to indicate that the latter was structurally earlier.

The building of the cist and the circle was preceded by an occupation of the area, represented by the occurrence of about a dozen pots (fig. 17, 4-13) and two fragmentary iron knives or daggers (fig. 36, 1-2) in levels prior to the cist.

Within the cist the grave-goods were disposed as follows:—

(*a*) On the floor, in a shallow layer of dust, the broken parts of a tanged iron knife (fig. 36, 6); an iron bar (fig. 36, 7); a small indeterminate iron object 3½ inches long; a decayed and indeterminate iron bar, not less than 1½ feet long, lying upright against the south-west corner of the cist; two terracotta spindle-whorls (SW1-2); and six pots.

(*b*) 1½ inches above the floor, a tanged iron knife (fig. 36, 5) and four pots.

(*c*) 10 inches above the floor and covering an area 1 foot by 1 foot 5 inches towards the western end of the cist, a small bundle of eight or nine human bones (no skulls). On the same level near the centre of the cist, a pot of type C20*f*.

Above these deposits the cist had, as usual, been filled with sandy earth to the level of the base of the port-hole, whereafter other earthen deposits had infiltrated through the top.

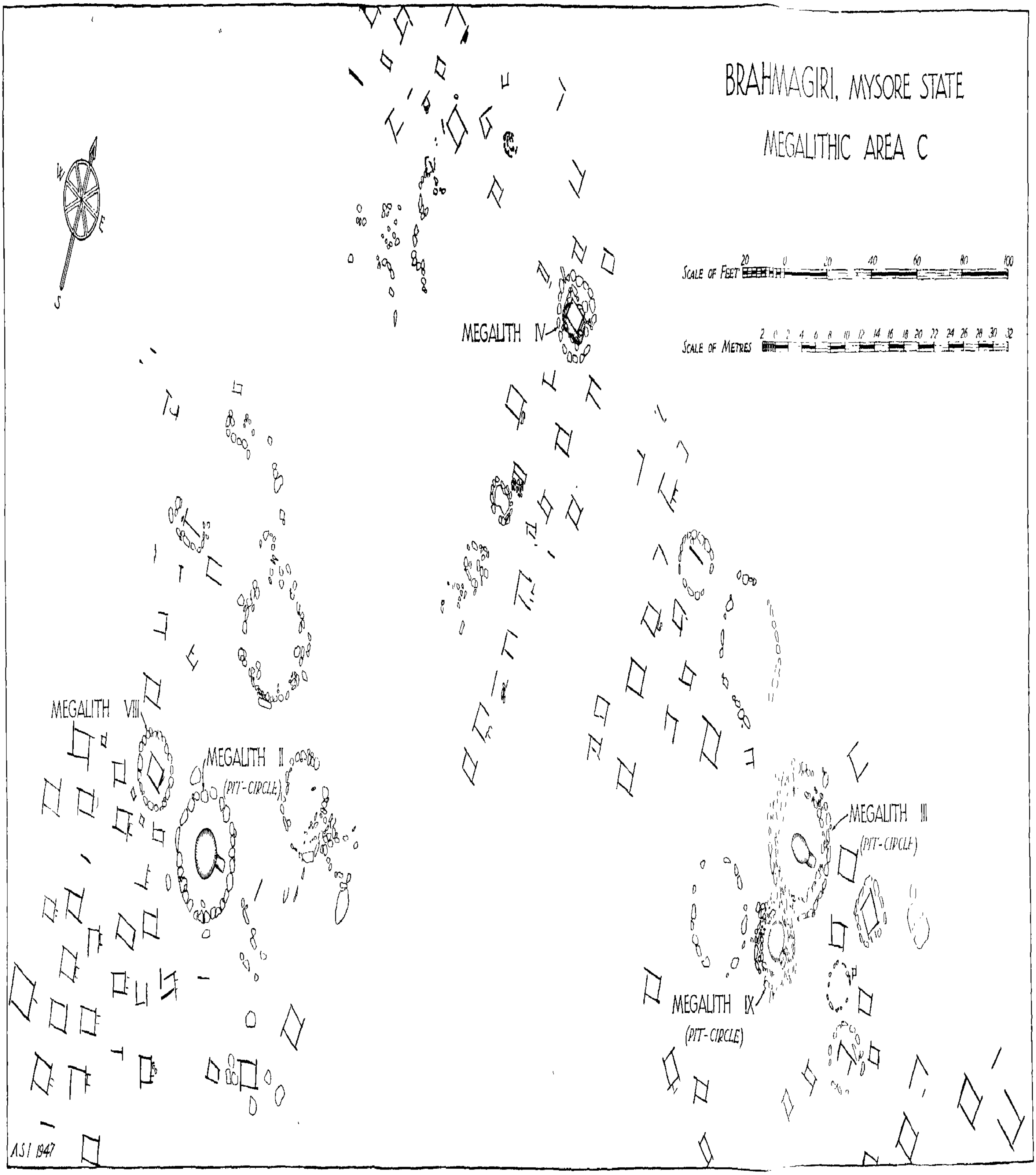
Megalith VIII (pls. LXXXII B, LXXXIII B and LXXXIV A, and fig. 5) included a cist 5½ feet by 4 feet 2 inches at the top, 6 feet 5 inches by 4 feet 4 inches at the base, and 5¾ feet deep. It was built on an anti-clockwise svastika plan, the major axis being 99° magnetic. In the eastern orthostat was a port-hole, 1 foot 11 inches in diameter, covered by two door-slabs, which in turn were backed by a *chūnam* filling. The capstone was missing.

The cist was surrounded by a dry-built stone wall of not less than four courses, 1¾ feet in height. Both sides of the approach to the port-hole were similarly faced, the facing being carried back to the surrounding circle of untrimmed granite boulders, within which a scatter of granite rubble represented the former cairn. The port-hole had been closed with a double door-slab.

There was no occupation of the site prior to the building of the tomb.

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[1] The presence of fragments suggests that the pottery had previously been exposed elsewhere, presumably with the bodies during excarnation.


BRAHMAGIRI, MYSORE STATE
MEGALITHIC AREA C
SCALE OF FEET
20 0 20 40 60 80 100
SCALE OF METRES
2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32
W
E
S
MEGALITH IV
MEGALITH VIII
MEGALITH II
(PIT-CIRCLE)
MEGALITH III
(PIT-CIRCLE)
MEGALITH IX
(PIT-CIRCLE)
A.S.I. 1947

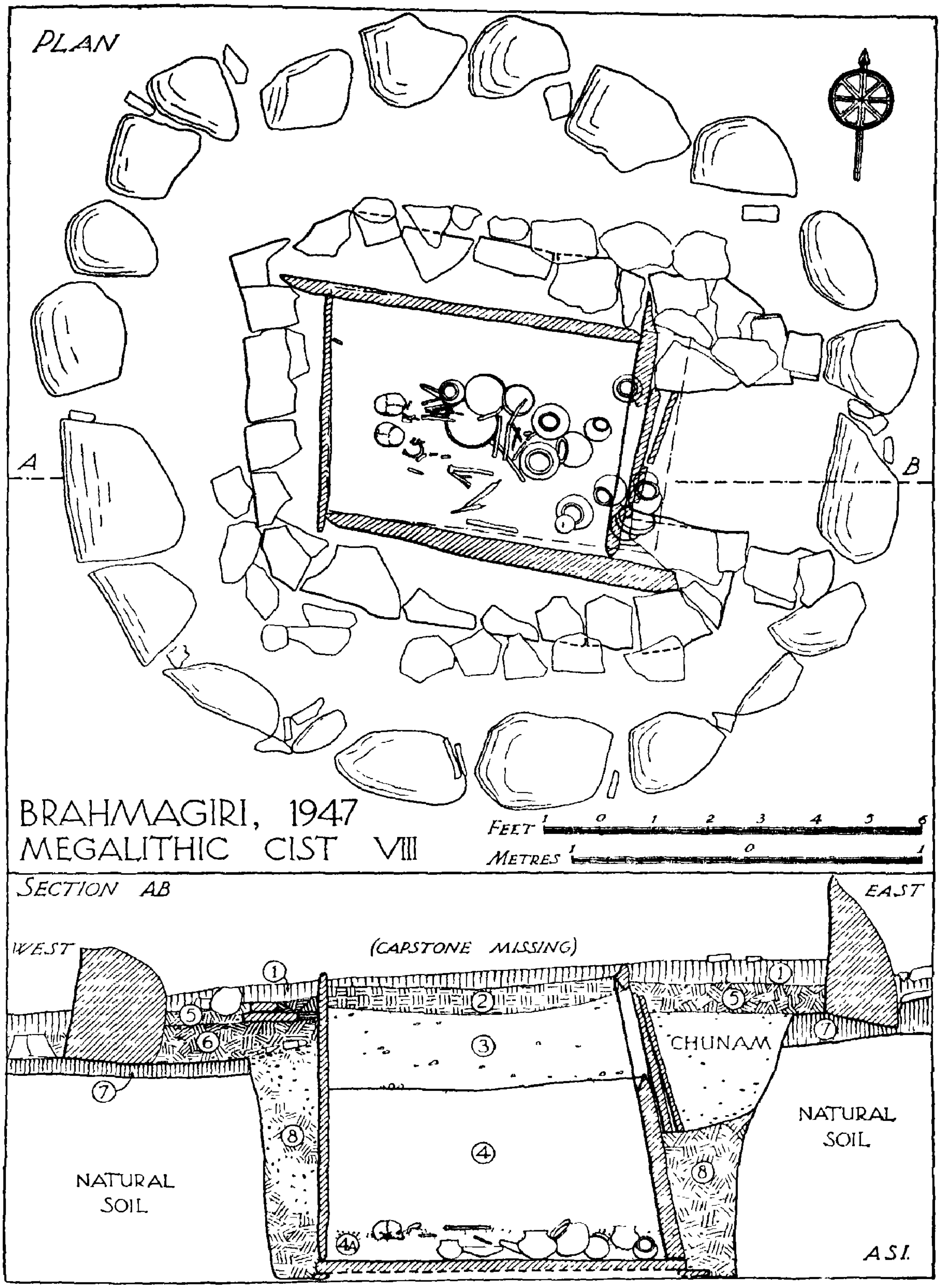

PLAN
A
B
BRAHMAGIRI, 1947
MEGALITHIC CIST VIII
FEET
METRES
SECTION AB
EAST
WEST
(CAPSTONE MISSING)
CHUNAM
NATURAL SOIL
NATURAL SOIL
A.S.I.

FIG. 5

Within the cist the stratification was as follows:—

(*a*) On the floor-slab, in a layer of dust ¼ to ⅛ inch in thickness, such as accumulates under normal conditions within a few hours, lay the following objects:—a decayed iron bar (fig. 36, 8), upwards of 11 inches long; a tanged iron knife or dagger (fig. 36, 3); a fragmentary iron knife; and a very decayed iron bar of uncertain shape upwards of 2¾ feet long, lying upright against the south-east angle of the cist. Fifteen pots also lay at this level. Inside a shallow dish, Type C14, lay over fifty tiny white and green beads of magnesite or dolomite, resembling seed-pearls, and a fragmentary iron object of indefinite shape. Against the same dish rested a fragmentary tanged iron knife over 10½ inches long and 1½ inches broad.

(*b*) At a height of 2 inches above the floor-slab lay the following:—an iron knife-blade (fig. 36, 4) and a fragmentary chisel (fig. 36, 9).

(*c*) At an average height of 5 inches from the floor and overlying four pots was a tightly packed mass of disarticulated human bones including two dolichoid adult skulls and covering an area approximately 3 feet by 2 feet towards the western side of the cist.

Above the bones, the cist had been filled with sandy earth to the level of the bottom of the port-hole before the latter was sealed. The subsequent filling had percolated through the top.

Megalith X (pls. LXXXIV B, LXXXV–LXXXVII, and figs. 6 and 7) included a cist 5 feet 1½ inches by 3 feet 11 inches at the top, 5 feet 2 inches by 4 feet 1 inch at the base, and 5 feet 11 inches high above the floor-slab, the major axis being 90° 30′ magnetic. It was built on a clockwise svastika plan. In the eastern orthostat was a port-hole, 1 foot 7 inches in diameter, approached by a passage flanked on either side by a vertical slab. The cist was surrounded by a dry-built stone wall still surviving to a height of 11 courses. The wall had been slightly battered—a feature emphasized by the inward collapse of the upper courses. Between this wall and the northern, western and southern orthostats of the cist was a roughly built supplementary wall. When the tomb was finally closed, the entrance-passage was sealed by a door-slab and walled up (pl. LXXXVI B). There was no boulder-circle around the tomb. The capstone was missing.

The tomb contained no less than sixty-two pots, all of which were placed on the floor-slab, except one isolated and five in a group, which lay 4–6 inches above the level of the bones and were evidently placed along with these. Inside one of the pots was found a small indeterminate iron object. The bones, which lay at a height of 6 inches above the primary deposit of pots, comprised three human skulls and some other disarticulated bones. The earthen filling above these deposits showed the usual change at the level of the port-hole.

A feature of this cist was the close association of three small cists built alongside the main cist and structurally later than it. Each of these small cists contained a few pots, but only in one of them were found some small fragments of human bone, apparently of an adult.

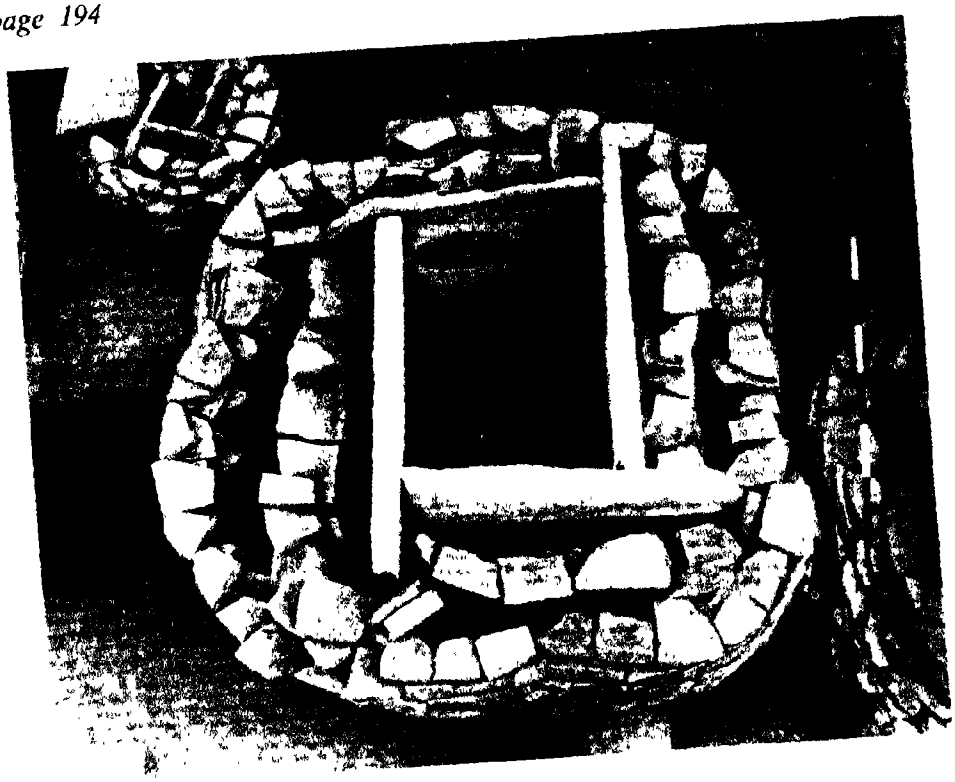
B. PIT-CIRCLES. The megalithic cemetery at Brahmagiri, even in its present despoiled condition, contains upwards of 300 cist-tombs. At a few points among them occur megalithic monuments of a somewhat different type, about a dozen in all, consisting of stone circles which on investigation are found each to enclose a pit up to 8 feet in depth. The name 'pit-circle' is here allotted to this type.

In the considerable area surveyed, nine of these pit-circles were identified. They occurred in two groups of four each, with an isolated outlier of exceptional size and elaboration. Four of them were excavated, but one of these (Megalith III) was found to have been robbed previously and is discounted.

The over-all diameter of these pit-circles ranges from 20 feet to 31 feet and is thus larger than that of the cist-circles. Sometimes the circle is formed by a single line of untrimmed granite blocks. In other cases, it consists of two concentric circles of these blocks which, with a heavy scattering of rubble between them, evidently represent a former low, roughly built wall. In one case (Megalith VII) this wall was more carefully constructed, being faced with roughly trimmed granite blocks which survived to the maximum height of three courses (pl. XCII A).

The enclosed pit is either circular or oval, in the latter case with the longer axis east-west. The diameter ranges from 8 feet to 12 feet. In every case the rim of the pit was

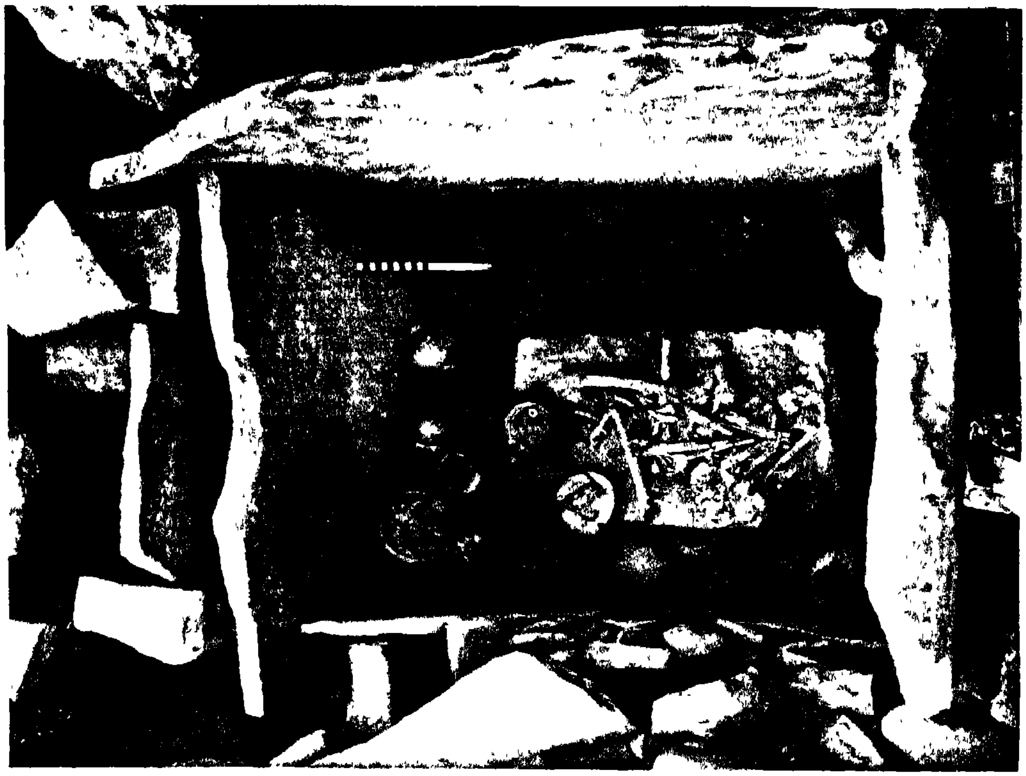
To face page 194



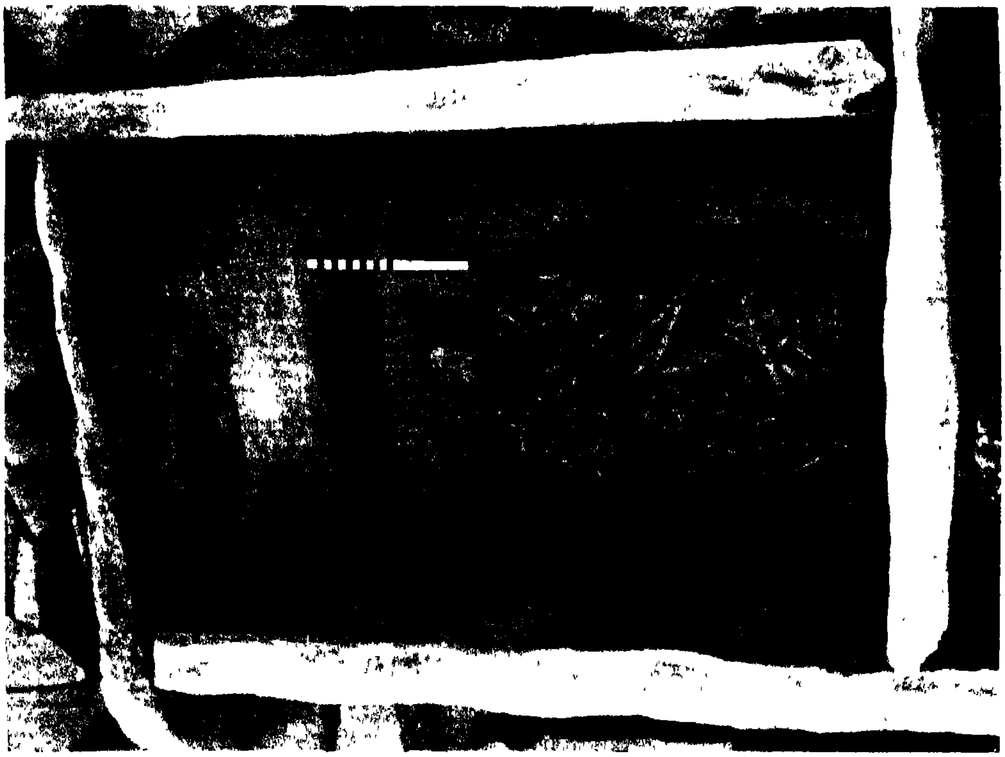
A. *Brahmagiri: megalith I*



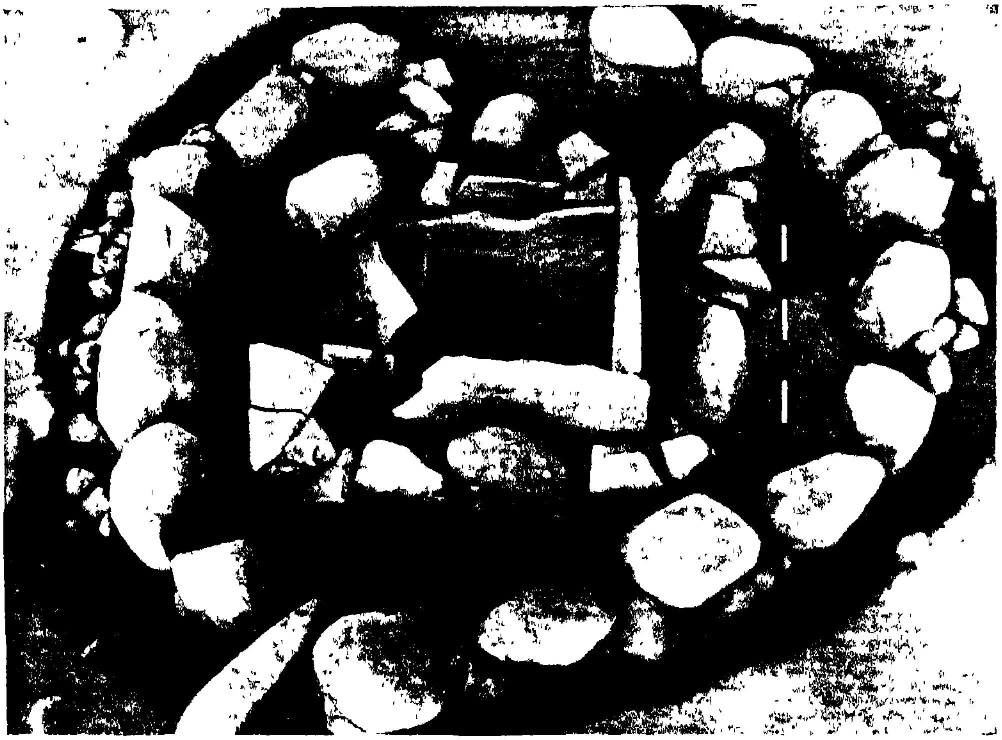
B. *Brahmagiri. megalith I, showing overlap of wall at entrance*



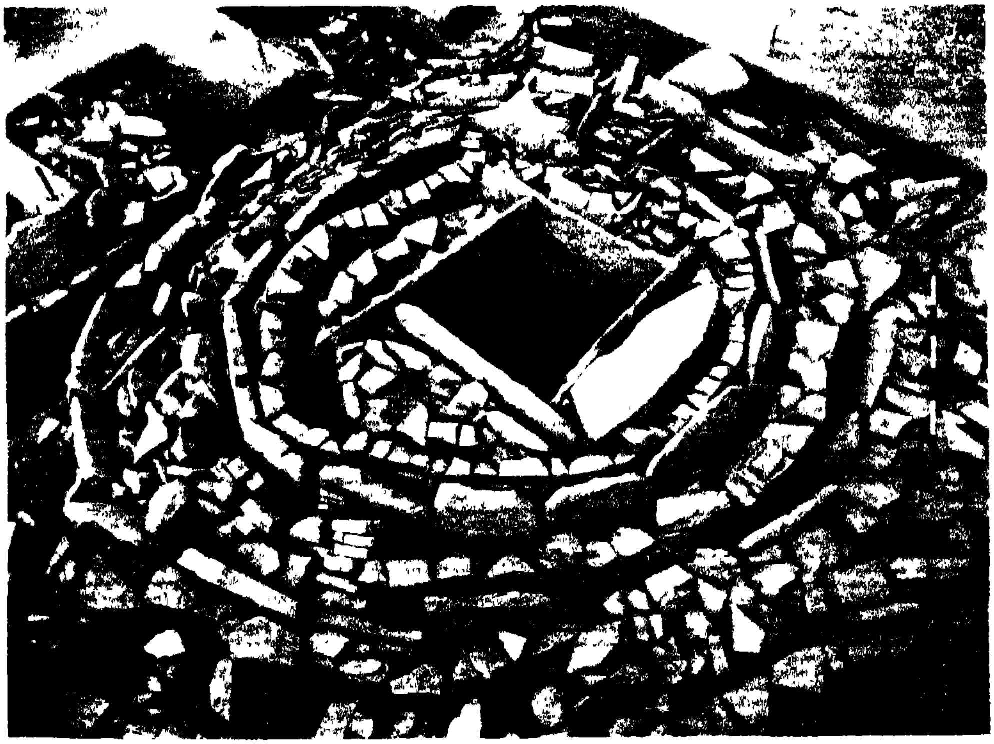
B. *Brahmagiri: megalith IV*



A. *Brahmagiri: megalith I*

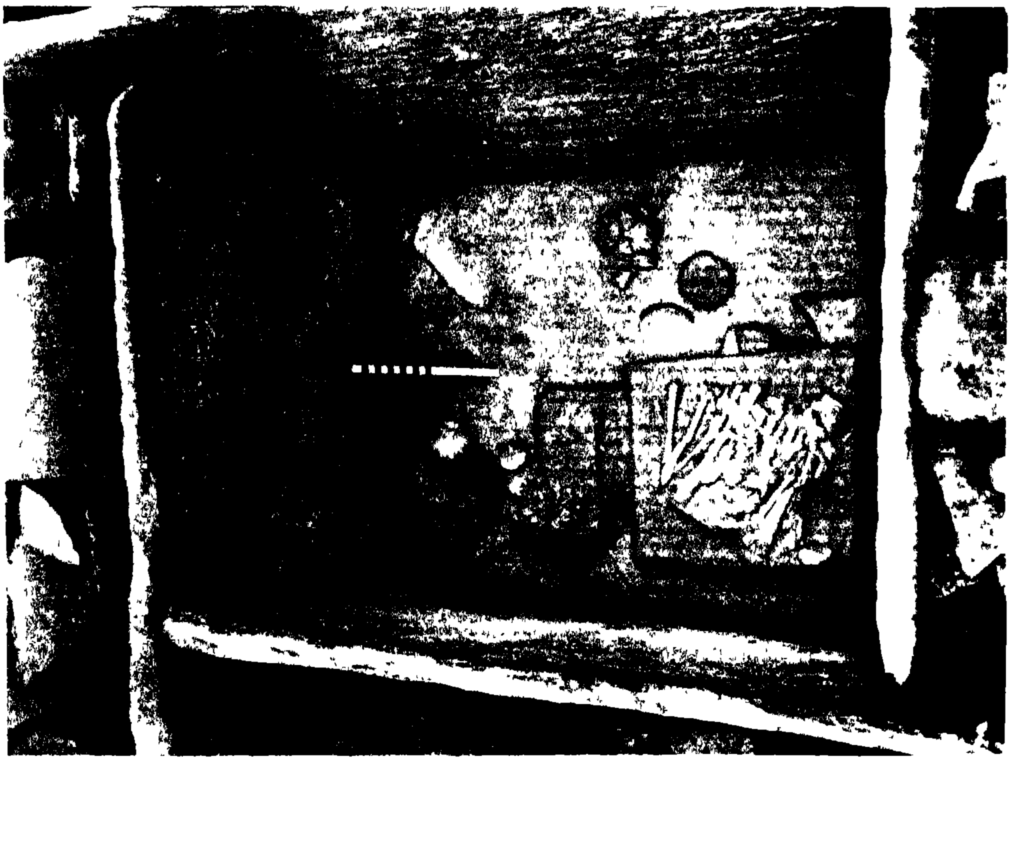


A. *Brahmagiri: megalith IV*



B. *Brahmagiri: megalith V*

To face plate LXXXI



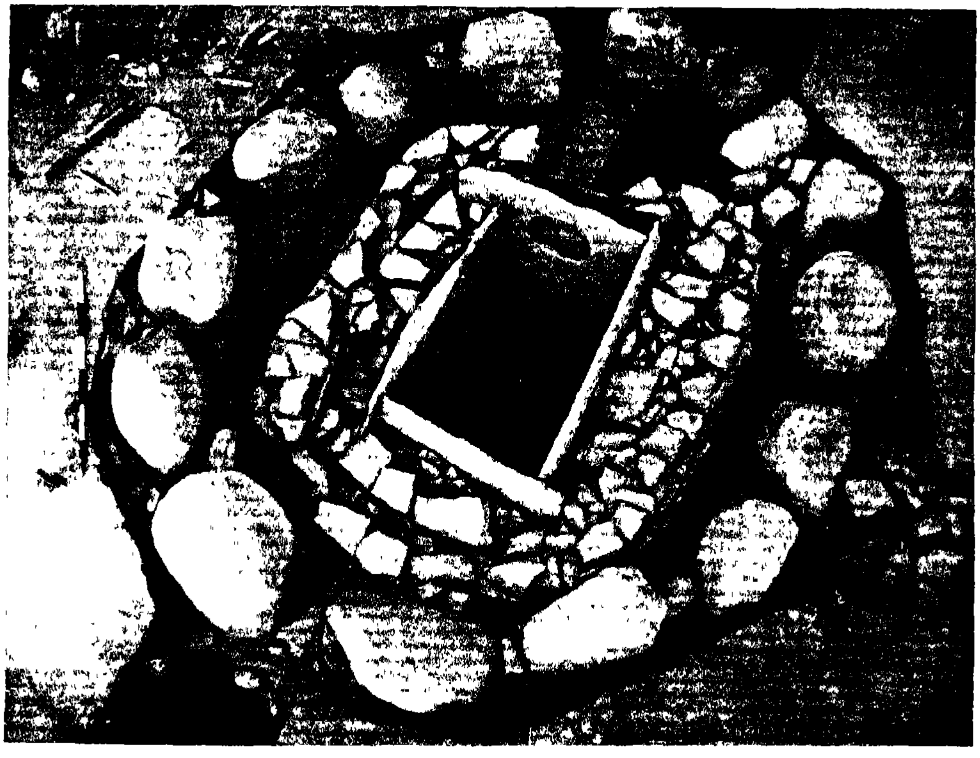
A. *Brahmagiri: megalith V*



B. *Brahmagiri: megalith V, showing door-slab and paved approach after removal of walling*



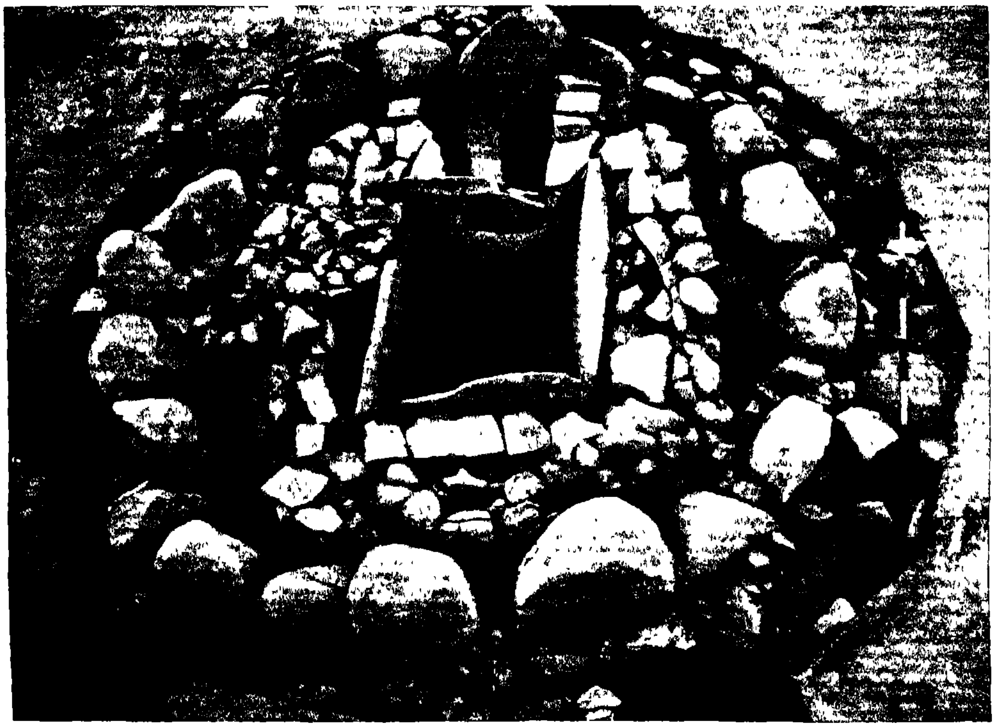
A. *Brahmagiri. megalith VI before excavation*



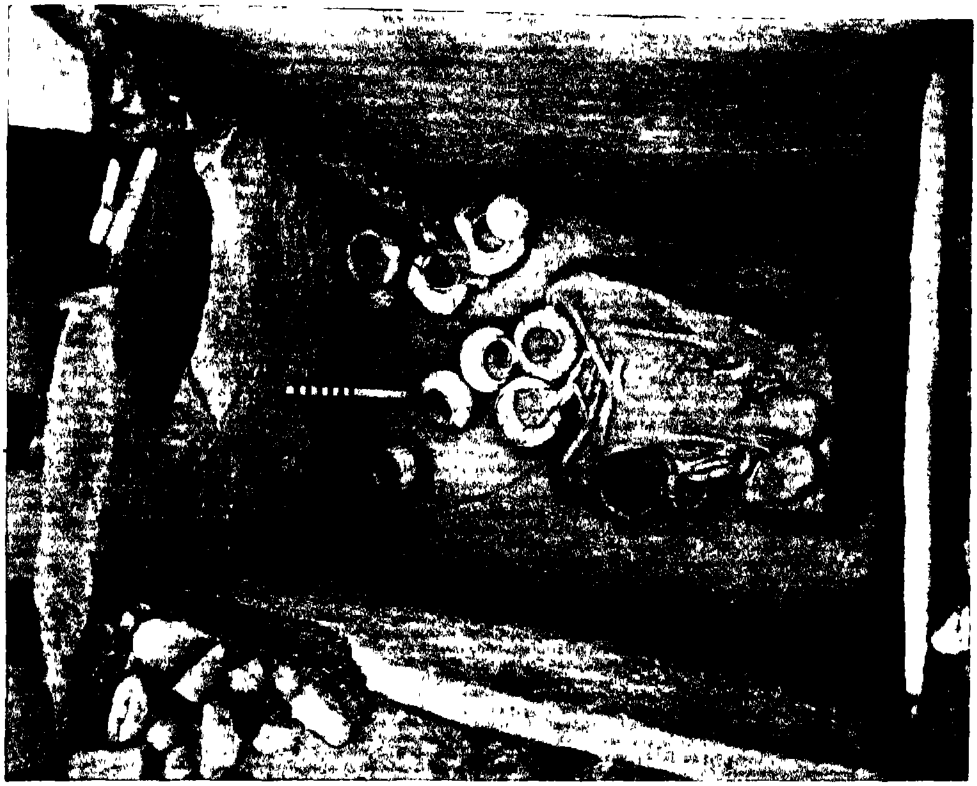
B. *Brahmagiri megalith VI*



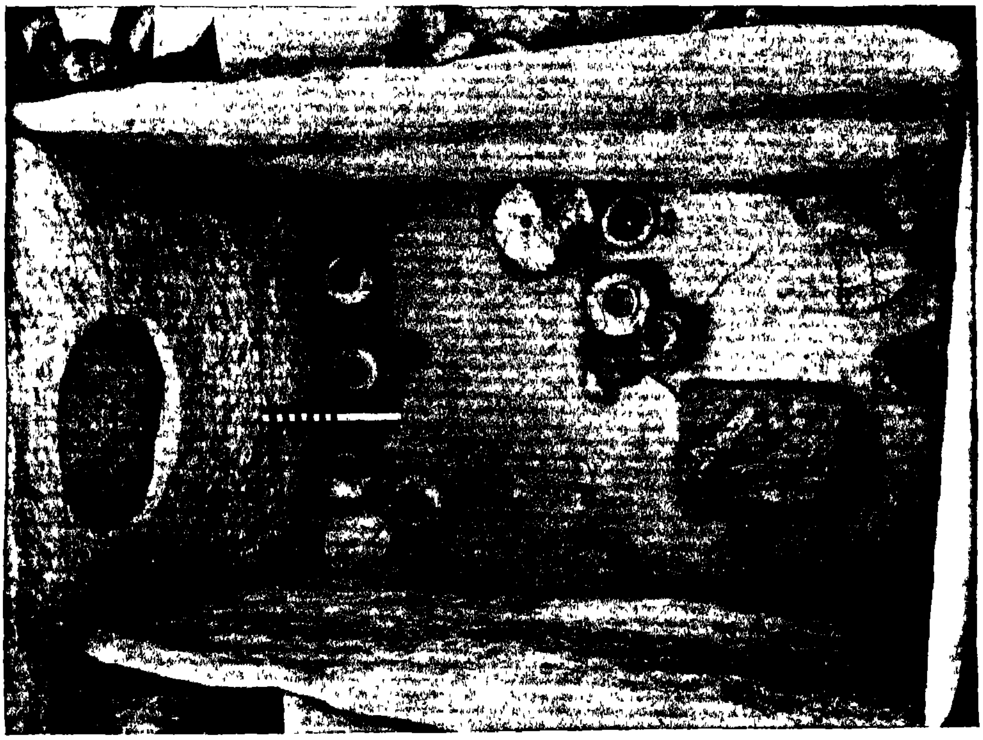
A. *Brahmagiri: megalith V, showing walled-up 'port-hole'*



B. *Brahmagiri: megalith VIII*



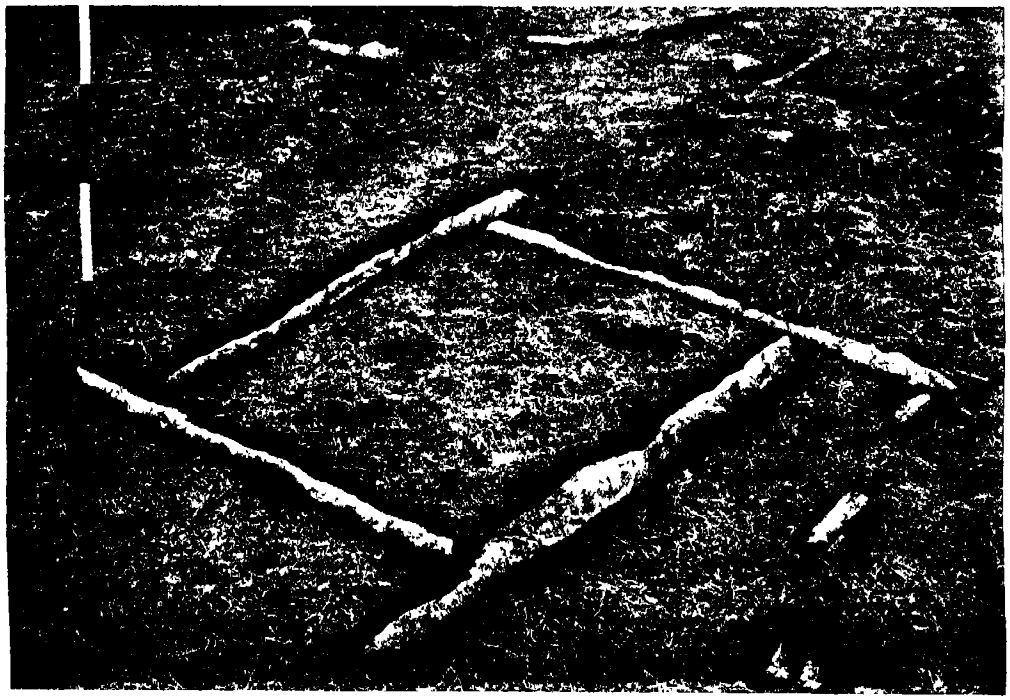
B. *Brahmagiri: megalith VIII*



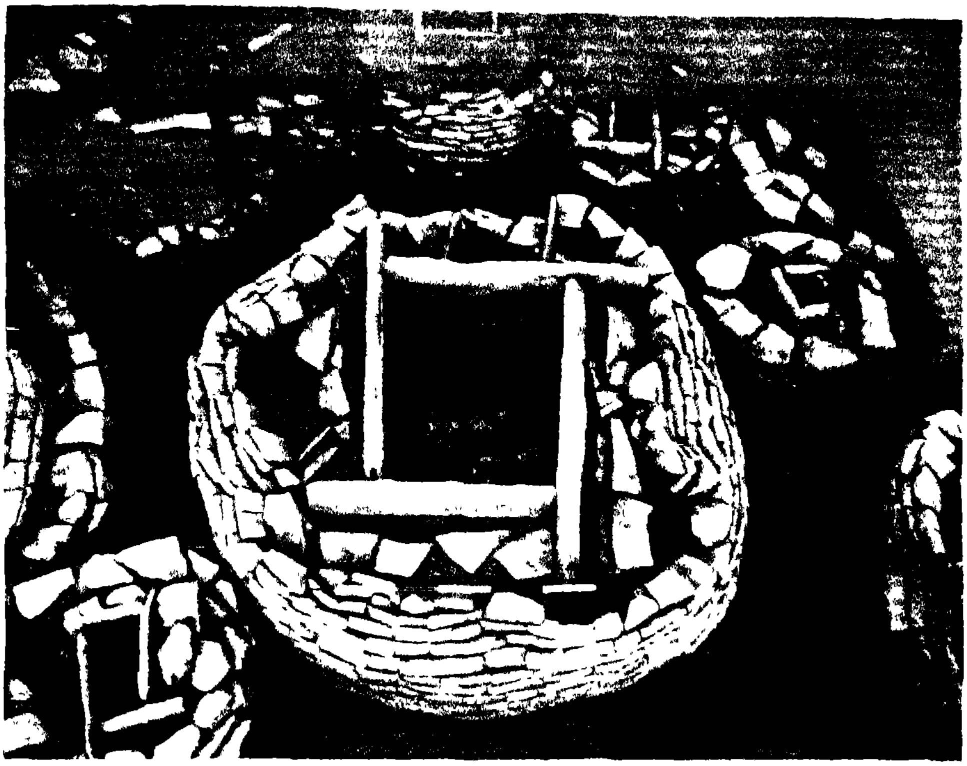
A. *Brahmagiri: megalith VI*



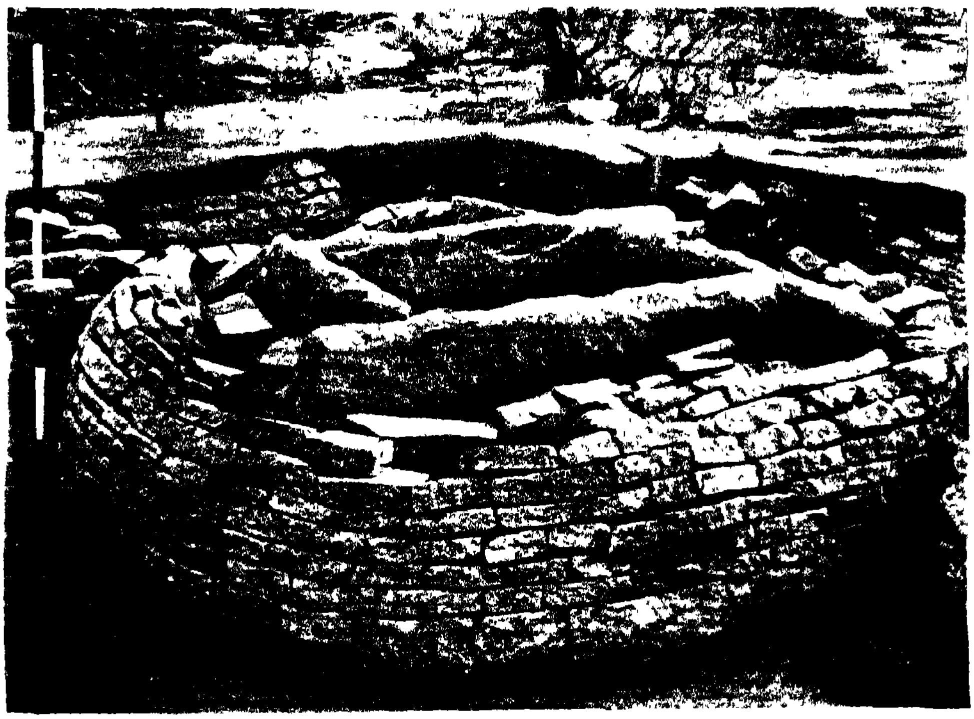
A. *Brahmagiri: entrance to megalith VIII, showing circle-stones, walls flanking passage, and double door in position*



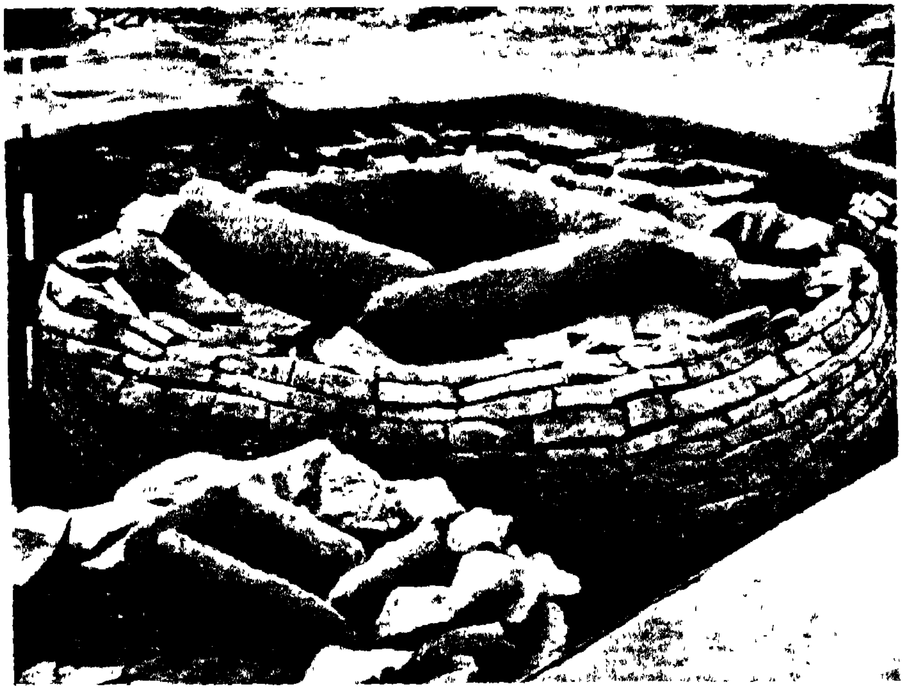
B. *Brahmagiri: megalith X before excavation*



A. *Brahmagiri: megalith X, showing adjacent small cists*



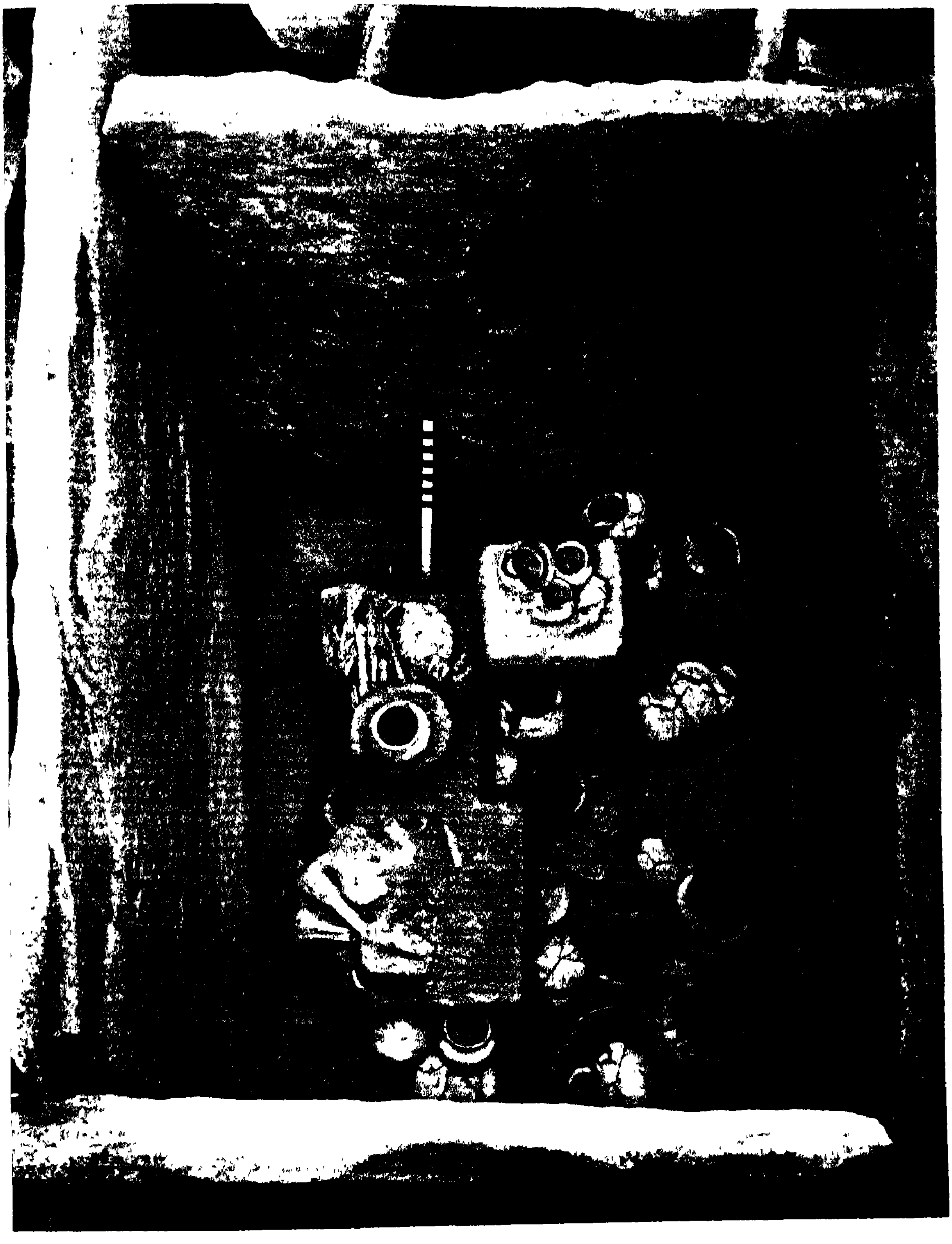
B. *Brahmagiri: megalith X*



A. *Brahmagiri: megalith X, with cist Xa in foreground*



B. *Brahmagiri: walled-up entrance to megalith X*



Brahmagiri. megalith X, showing contents of cist

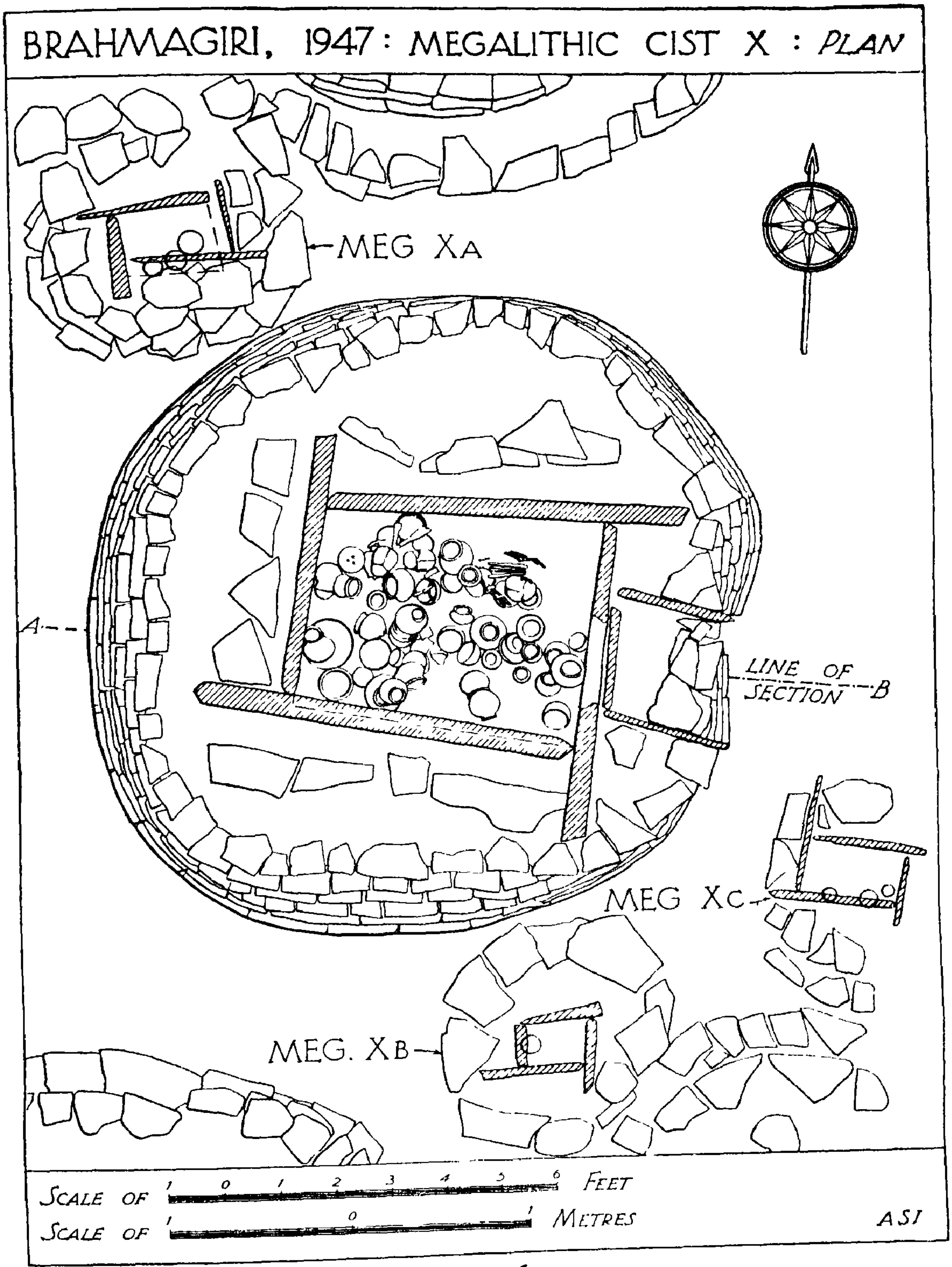

BRAHMAGIRI, 1947: MEGALITHIC CIST X : PLAN
MEG XA
A
LINE OF SECTION B
MEG XC
MEG. XB
SCALE OF 1 0 1 2 3 4 5 6 FEET
SCALE OF 1 0 1 METRES
ASI

FIG. 6

approached from the east by a short shallow ramp which had been 'closed' by a non-functional door-slab backed by *chūnam*, the whole exactly resembling the ramp, functional door and *chūnam*-packing of the cists.

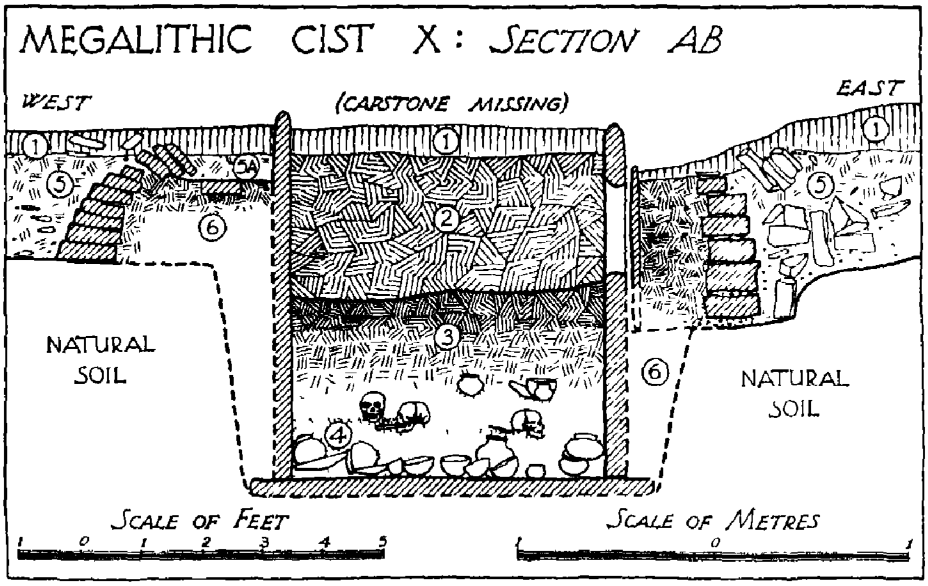


FIG. 7

On the floor of the pit, four stone slabs marked out an oblong space about 4 feet by 3 feet, and had probably supported wooden posts; below, it is suggested that these posts were the legs of a bier. To a height of 2½-3 feet above the floor was a layer of earth, in and under which lay the pots and iron implements (knives, wedges, chisels, sickles, arrow-heads, and iron spears 5½-6½ feet long) of the main deposit. In one instance (Megalith VII) other pots had evidently stood round the rim of the pit, but had fallen in and been crushed when the sides collapsed before the final process of filling (see p 199). One of the intact pit-circles produced no bones at all; another (Megalith IX) yielded only two human bones and a tooth, all from the top of the primary deposit, where they lay with 33 gold and 2 carnelian beads, 4 copper bangles and a conch-shell; whilst Megalith VII, after the collapse of its sides, had been re-cut down to the level of the deposit, and at the base of the re-cutting lay two skulls and a few disarticulated long bones.

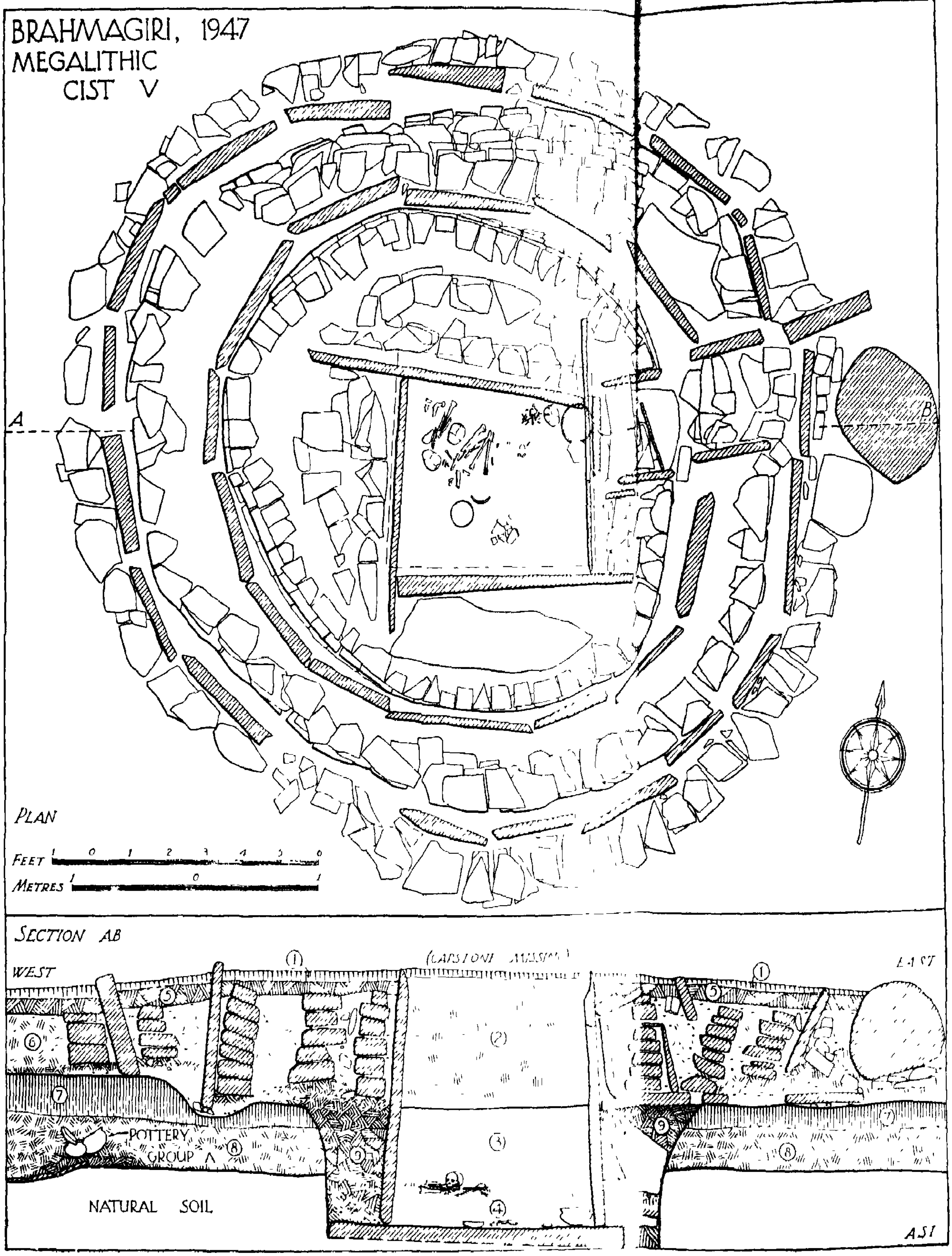
All the pits had been finally filled with alluvial clay, presumably from a neighbouring pond.[1] The clay-filling was devoid of relics.

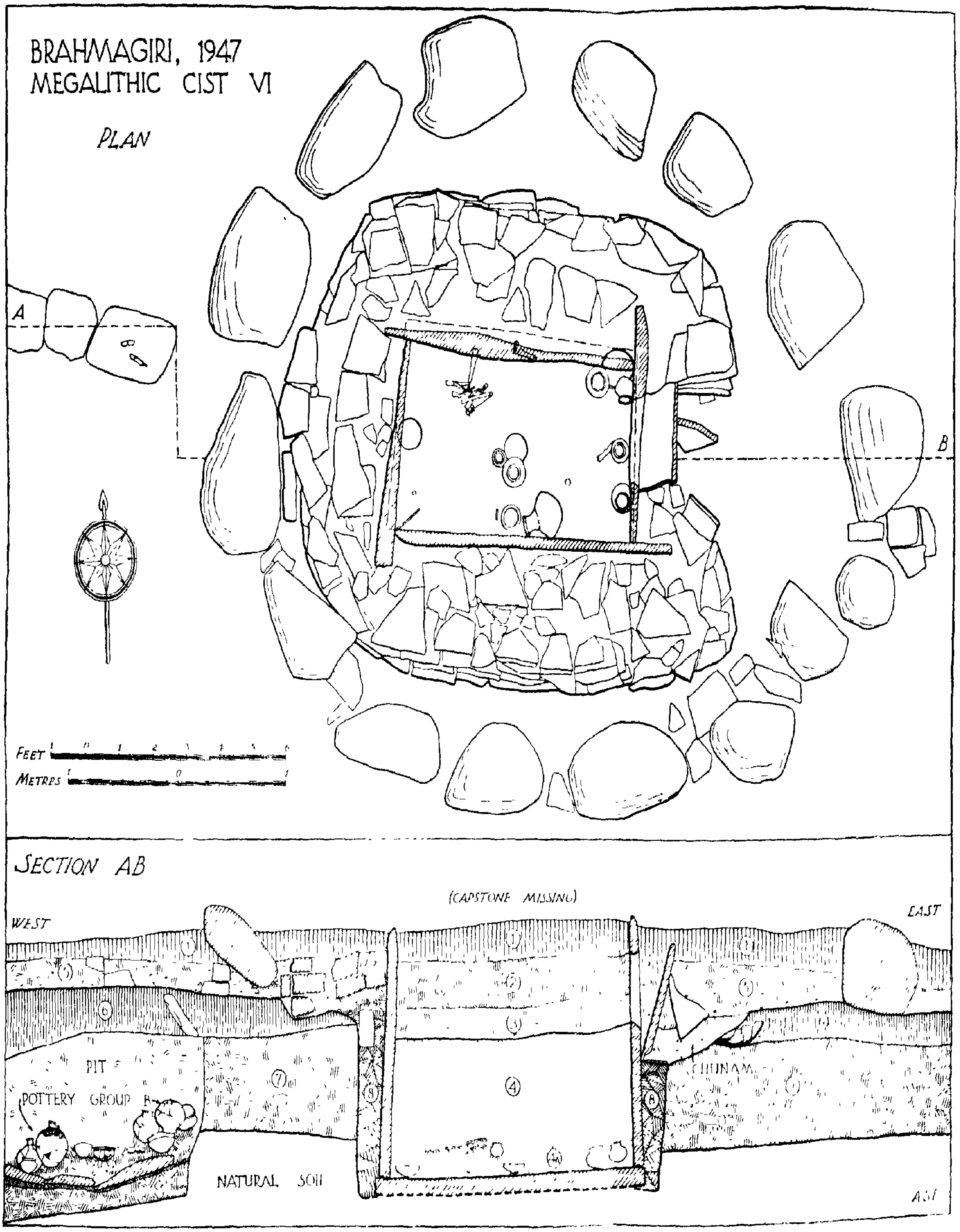
Structurally, the 'false door' of the pits implies the priority of the cists, where the door is functional. The pottery from the pits represents the same culture as that from the cists, but includes types absent from the latter—notably, tall conical lids, the presence of which may merely imply that the pots deposited in the open pits required more careful covering than those deposited in the closed cists.

Further exploration is essential before any convincing theory as to the purpose of these pit-circles can be established. Meanwhile, the following points may be noted:—

(1) The pit-circles represent the same culture as the cist-tombs.
(2) There is a tendency for them to nucleate amidst the cist-tombs.

[1] A decayed tank of unknown date still exists in the vicinity.


BRAHMAGIRI, 1947
MEGALITHIC
CIST V
A
B
PLAN
FEET 1 0 1 2 3 4 5 6
METRES 1 0 1
SECTION AB
WEST
EAST
(1)
(2)
(3)
(4)
(5)
(6)
(7)
(8)
(9)
POTTERY GROUP A
NATURAL SOIL
ASI


BRAHMAGIRI, 1947
MEGALITHIC CIST VI
PLAN
A
B
FEET
METRES
SECTION AB
(CAPSTONE MISSING)
WEST
EAST
PIT
POTTERY GROUP B
NATURAL SOIL
CHUNAM

(3) If human burials had been a feature of the original lay-out of the pit, all traces of them have been completely removed in one intact example, almost completely in another, and less completely in a third, where, however, a special factor is introduced by the (ancient) extensive collapse of the sides.

(4) The funerary association of the circles is however sufficiently manifest. In two out of three of them, human bones occur immediately above the offerings at a height of about 2 feet above the original floor.

Two alternative possibilities suggest themselves on the evidence available:—

(*a*) That these pit-circles may have been specialized tombs for a particular and restricted social grade. (But, if so, why the complete absence of bones in one of them?)

(*b*) That they were macerating pits, in which human bodies were exposed on a bier, resembling a modern charpoy, a little less than 2 feet high, with the four corner-posts set on floor-slabs. Offerings and wind-blown or rain-washed silt accumulated up to the top-level of the bier, to which bodies were added from time to time and from which selected bones were removed for final interment in a cist-tomb. All the bones were thus removed from Megalith II, and all save a few fragments from Megalith IX, but in the latter case a number of small gold and carnelian beads and copper bangles remained where the bodies had been lying. In Megalith VII, the heavy collapse of the sides of the pit introduced a discordant factor and, although a shaft was cut down through the fall to the bones and some of these were recovered and others disturbed, a considerable number of them remained on the (supposed) bier. In this connection it may be observed that the cist of Megalith VI contained only a few long-bones, possibly owing to a similar collapse in a macerating pit.

On this second view (*b*), which seems on general grounds the more probable but needs checking by further digging, the pit-circles might aptly be described as 'inverted towers of silence'.

It remains to add that the nearest analogies to these pit-circles were excavated in the middle of the nineteenth century by Meadows Taylor at Jiwārji in the Gulbarga District of Hyderabad State.[1] His published sections are in advance of the average technical standards of his day, although they tend to show skeletons in articulation where his description makes it clear that they were disarticulated fragments, evidently in some cases the subject of secondary burial. Some of the excavated pits, which were 8 feet or more in depth, were surrounded by a double circle of boulders, as in our Megaliths III and IX. On the floor of one pit were 14 pots but no human remains. Another pit yielded parts of a human skeleton, with pottery and iron spearheads. Others included single or double megalithic cists, with more or less fragmentary skeletons both inside and outside the cists. It is evident that some of these pit-circles were used for mass-burial, but the type needs further examination.

Four monuments of this class, Megalith Nos. II, III, VII and IX, were opened this season.

Megalith II (pls. XC, XCVI and XCVII) consisted of a single circle of untrimmed granite blocks with three outliers which may or may not belong to the plan, the average external diameter of the circle being 26-27 feet.

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[1] Meadows Taylor, *Megalithic Tombs and other Ancient Remains in the Deccan* (papers collected and republished by the Archaeological Department of Hyderabad State, 1941, from the *Journ. of the Bombay Br. of the Roy. As. Soc.*, III, 1851, and IV, 1852, and from the *Trans. of the Roy. Irish Academy*, XXIV, Pt. III, *Antiquities*, 1862), pp. 10 and 45.

Between and around the boulders was a considerable mass of rubble packing which did not extend to the centre and apparently represented a low stone bank or very rough wall.

Excavations revealed a central pit roughly circular on plan with an average diameter of 10 feet and a depth of 6 feet from the ancient level. The sides were approximately vertical, but a partial collapse had occurred on the western side before the final filling. At the eastern end a shallow ramp led down to the brim of the pit and contained a large flat slab of granite, which may be assumed to represent a displaced 'door-slab' (cf. Megalith VII, pl. XCIV). East of the door-slab the ramp had been filled with earth and *chūnam.*

There was no regular occupation of the site prior to the construction of this 'pit-circle', and only a few indeterminate potsherds were obtained from the ancient humus.

On the floor of the pit were four small stone slabs, laid out symmetrically to form the corners of an oblong space 4 feet by 2½ feet. These slabs, it is presumed, supported the legs of a bier upon which a human body or bodies were exposed. No bones, however, were found, and it has been inferred above (p. 197) that they had all been removed for final interment in some neighbouring cist. To a height of 20 inches above the floor the pit had been filled with earth (no. 4 on section, pl. XCVII), mostly collapsed from the sides, on and under which lay pots and iron objects. It is conjectured that the top of this layer represents approximately the top of the former bier. Of twenty pots, five lay at the 20-inch level while the rest lay below it. The following iron and other objects were also within the primary filling:—a tanged iron sword (fig. 39, 36); an iron object of indeterminate shape, 5 inches long and 2 inches broad; a socketed and barbed iron arrow-head (fig. 38, 27); an iron bar, 9 inches long and 1½ inches broad; small fragments of iron; an iron instrument of uncertain use (fig. 39, 34); a tanged iron dagger (fig. 37, 11); three iron chisels (fig. 38, 25); an iron object of indefinite shape, over 4½ inches long; two iron wedges (fig. 38, 21 and 24); an iron bar; an iron sickle (fig. 38, 29); a granite pestle (pl. CXVI, 12); and two terracotta spindle-whorls.

The upper filling of the pit consisted of black alluvial mud imported to the site.

Megalith III (pls. XCI and C) had previously been disturbed and consequently no useful material or stratigraphical information was obtained from it. It consisted of two closely-lying concentric circles of untrimmed granite blocks having an over-all diameter of 30 feet. Between the two circles was a mass of rubble packing which did not extend to the centre.

The central pit was roughly ovoid on plan, having the minimum and maximum diameters of 5½ feet and 8½ feet respectively, the longer diameter being east-west. It was carried down to a depth of 7 feet 10 inches below the ancient ground level. At the eastern end of the pit and leading down to its brim was a shallow lip or causeway. A large granite slab which was found fallen into the pit was presumably the 'door-slab' of this causeway and had been backed by an earth-and-*chūnam* filling (cf. Megalith VII).

Three to four inches above the floor of the pit and towards its eastern side lay five trimmed granite slabs roughly placed one over the other. The other contents comprised eighteen indeterminate fragments of iron and a few stray potsherds. The filling throughout the pit was of mixed clay, sand and earth, and the material and stratigraphical evidence combined to show that the pit had been robbed of its contents and had then been levelled up by drifts of sand and earth in the course of time.

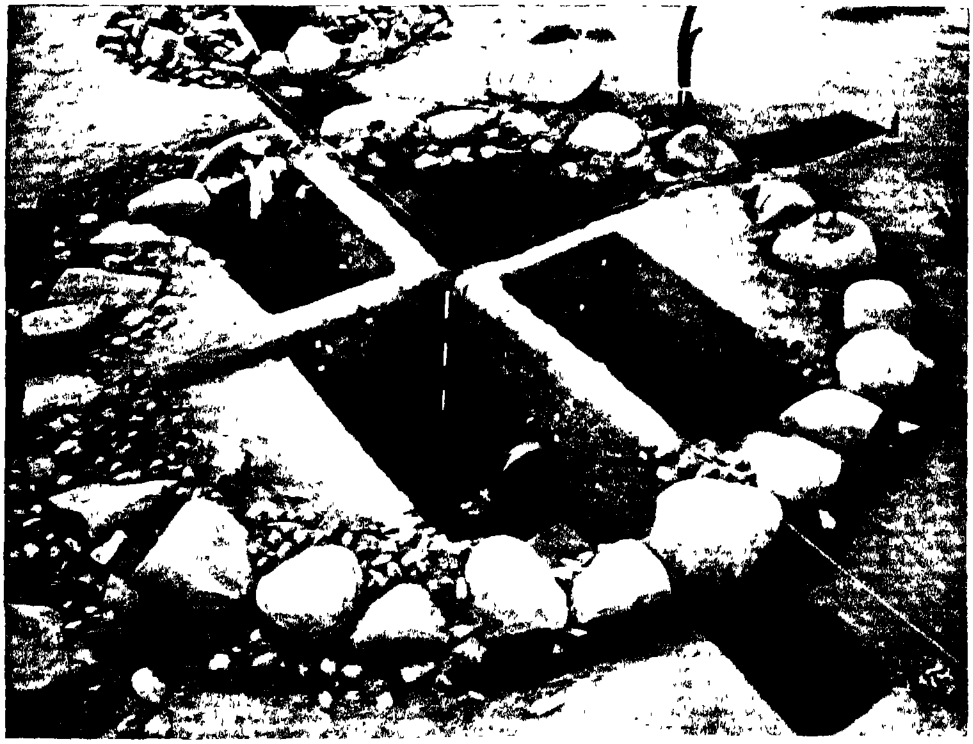
Megalith VII (pls. XCVIII–IX) presented a comprehensive picture of a 'pit-circle' of the Brahmagiri series. It consisted of a circular wall, 5½-6½ feet broad, consisting of a rubble core faced internally and externally with roughly trimmed granite blocks, which remain to a maximum height of three courses. The external diameter was 31 feet.

In the centre was a roughly circular pit, 12 feet in diameter and 7 feet 10 inches deep from the ancient level. Towards the eastern end was a shallow ramp or causeway leading down to the brim. The ramp was finally sealed by a double 'door-slab', backed externally by a compact *chūnam* filling (pl. XCIV).

The floor of the pit (pl. XCII B) formed a rectangular 'grave' 7 feet 4 inches by 5 feet 5 inches, with the longer axis east-west. On it were placed symmetrically four granite slabs, forming an oblong 4½ feet by 3 feet (pl. XCIII A). It has been suggested above that these slabs supported the legs of a bier upon which were placed human bodies for excarnation. Towards the western end of the pit was a patch, 3-4 inches thick, of ash covering an area 4½ feet by 1½ feet. On the floor were placed twenty-seven pots and the following iron objects: an iron lance (fig. 39, 32); a tanged iron knife (fig. 37, 16); an iron object of uncertain use over 10½ inches long; two spear-like objects 6-6½ feet long, with long flat pointed blade, and round shaft constricted towards the butt and ending in a knob (fig. 35); an iron wedge (fig. 38, 22); an iron sickle (fig. 38, 30); a fragment of an iron nail, about 3 inches long; a fragmentary iron chisel, over 3½ inches long; a thin shallow dish-like object (fig. 38, 28); and an iron bar (fig. 37, 18).



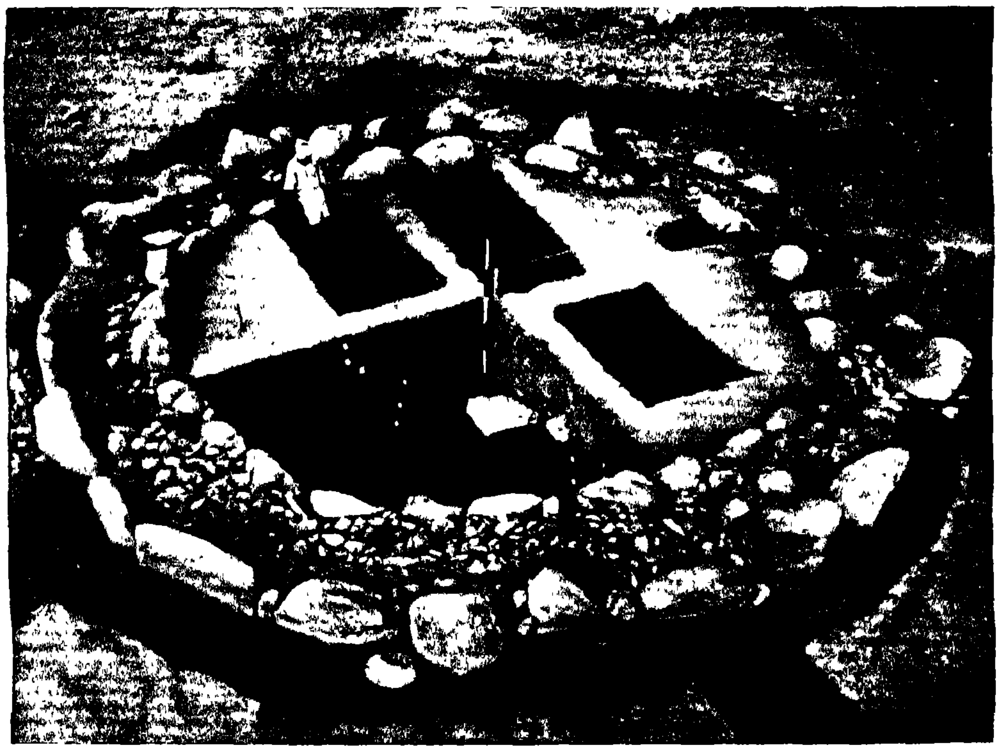
A. *Brahmagiri megalith II before excavation*



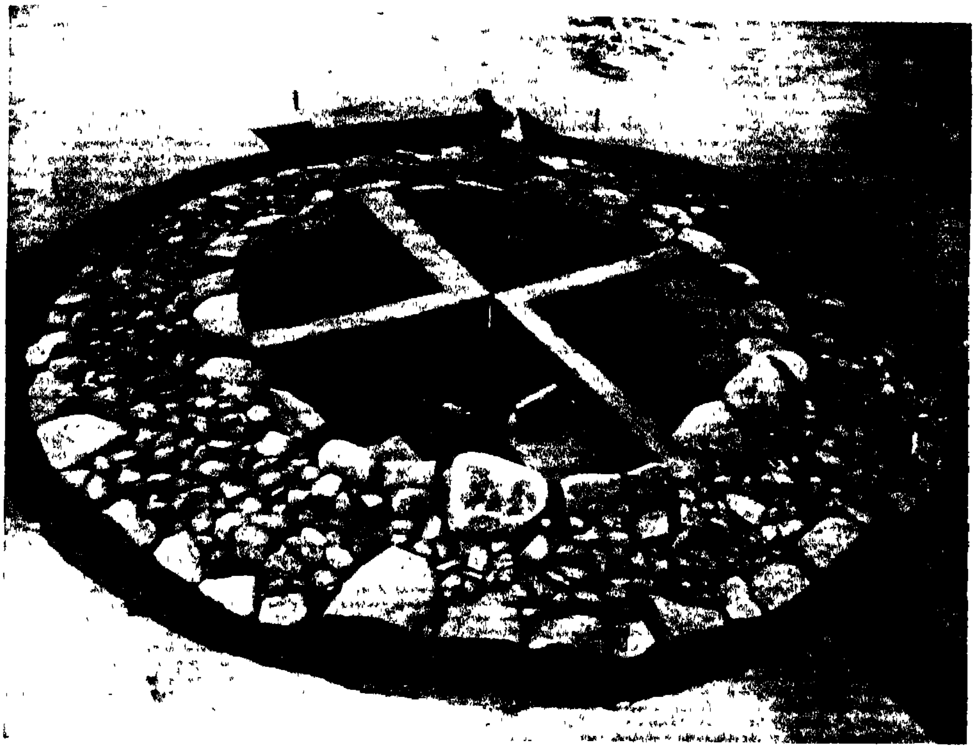
B. *Brahmagiri: megalith II (pit-circle)*



A. *Brahmagiri: megalith III before excavation*



B. *Brahmagiri: megalith III (pit-circle) during excavation*



A. *Brahmagiri: megalith VII (pit-circle) during excavation*

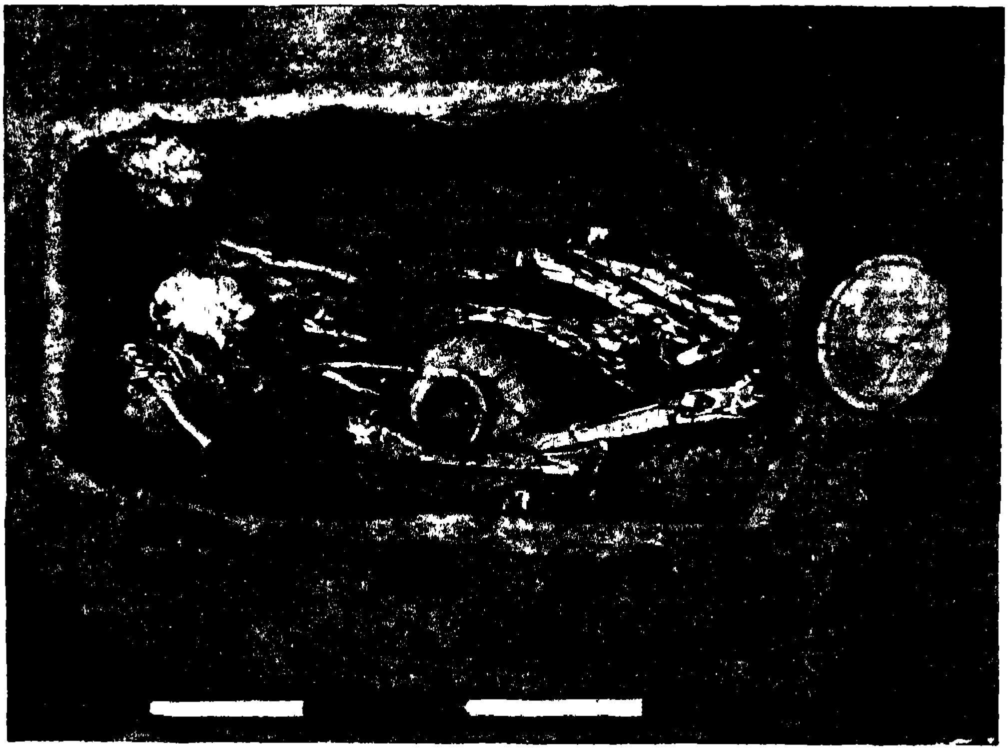


B. *Brahmagiri: pottery, ironwork and four base-stones on original floor of megalith VII*

To face plate XCIV



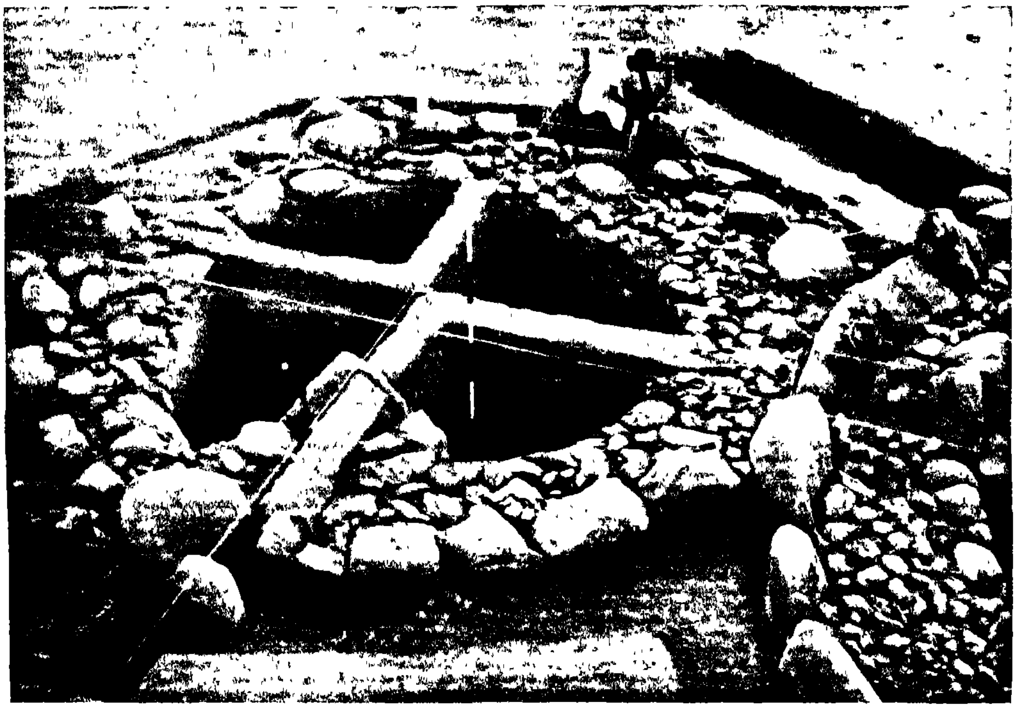
A. *Brahmagiri: megalith VII, pit-floor showing pottery, ironwork, and the four base-stones; 'door-slab,' top right*



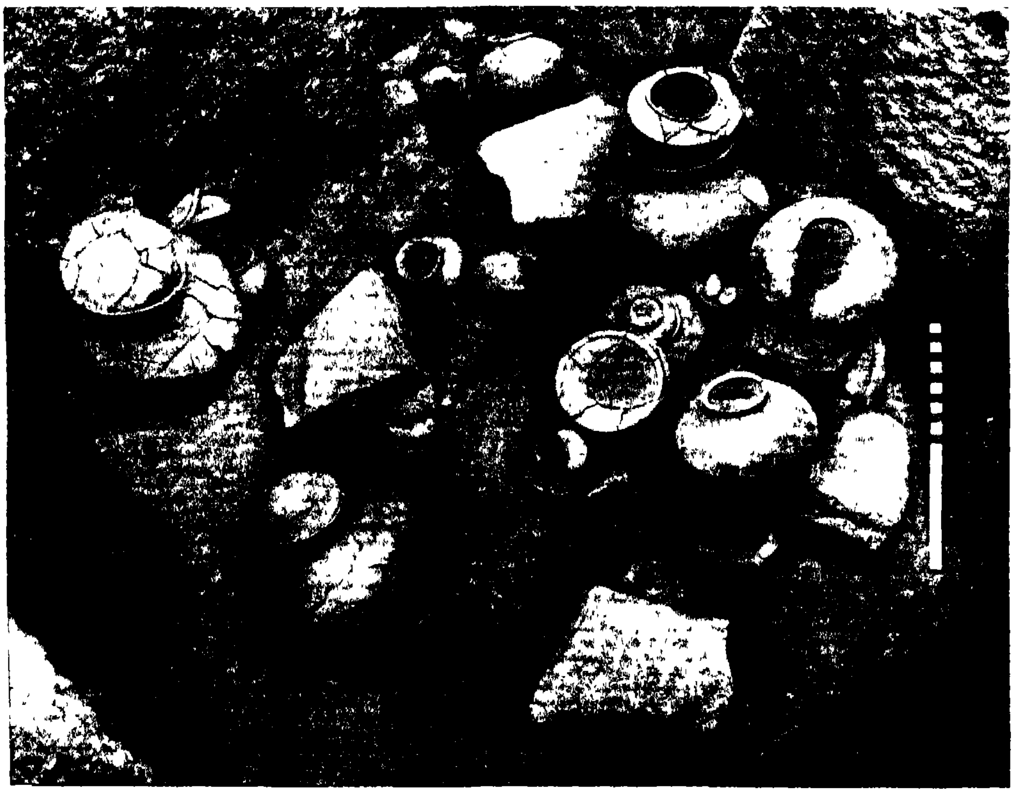
B. *Brahmagiri: megalith VII, showing re-cut pit*



Brahmagiri: megalith VII, showing 'door-slab' and chūnam packing



A. *Brahmagiri: megalith IX (pit-circle), with part of (earlier) megalith III on right*



B. *Brahmagiri: megalith IX, pit-floor showing pottery and four base-stones*

The other contents, which lay within a height of 20 inches above the floor, were: twelve pots; two tanged iron daggers (fig. 37, 13–14); an iron knife-blade (fig. 37, 17); a broken iron object of indefinite shape not less than 6 inches long; a decayed iron ring (fig. 39, 35); and two fragmentary iron objects.

A layer of wind-blown and rain-washed silt had accumulated around and above these pots and iron objects. To add to this, the sides of the pit had collapsed and had covered the bier-level. This collapse brought down along with it a number of pots which must originally have been placed around the lip of the pit. A shaft was later cut through this fall to the bones, some of which were removed while two skulls and a large number of disturbed bones were left behind (pl. XCIII B). Thereafter the pit had been filled with the usual black alluvial clay, and the eastern ramp blocked in the manner stated above.

Megalith IX (pls. XCVII and C) was another complete example of a pit-circle. It consisted of two concentric circles of granite blocks which, with a heavy scattering of rubble between them, doubtless formed a low, roughly built wall (pl. XCV A). The over-all diameter was 20 feet.

Excavations revealed a central pit roughly circular on plan with an average diameter of 8 feet, and vertical sides descending to a depth of 6¾ feet below the ancient level. On the eastern side of the pit was a shallow ramp which was subsequently blocked by a vertical granite slab backed externally by compact *chūnam* packing.

As in Megaliths II and VII, on the floor of the pit were placed symmetrically four roughly trimmed granite slabs forming an oblong 3½ feet by 3 feet (pls. XCV B and CI A), and, as in the other cases, it is postulated that these slabs supported the legs of a bier on which human bodies were exposed, the upper level of the former bier being represented by the bone-splinters, beads, etc. (see below), which are presumed to have been lying on it. On, or practically on, the floor lay thirty-one pots, around and above which had accumulated earthy deposits to a central height of 18–20 inches above the floor.[1] The sides of this pit also had partially fallen in. In and under the accumulation of earth were found the following iron objects: a tanged iron dagger (fig. 37, 12); a spear-like object 5½ feet long, with long flat pointed blade and round shaft constricted towards the butt, which is broken but presumably ended in a knob like those in Megalith VII; a small fragmentary iron object; an iron lance (fig. 39, 31); an iron wedge (fig. 38, 23), an iron bar (fig. 37, 19) two small fragmentary iron objects; a terracotta spindle whorl; and fragments of two hollow terracotta cones of indeterminate use.

At a height of 20 inches from the floor, two splinters of human bone and a tooth were obtained, the remaining bones having presumably been removed for interment elsewhere in a cist-tomb. With the bones lay one steatite, one serpentine and thirty-three gold beads, four copper bangles, and one conch-shell (pl. CI B, and pp. 266, 269).

The pit, like the others, was finally filled up with black alluvial clay, which was also spread to some extent laterally within the enclosure.

(ii) The Brahmagiri (Isila) town-site

The general character of the Brahmagiri (Isila) town-site has been indicated above (p. 185). The present excavations were concentrated along the foot of the hill (pls. LXXI B and LXXII), and took the form of a series of pits dug mostly in the form of single or conjoined 20-foot squares.

(*a*) *Culture-sequence*

The sequence of cultures revealed by these pits was as follows, from bottom to top:

I. *The Brahmagiri Stone Axe culture*, a crude chalcolithic culture extending to a maximum height of 9 feet from the natural surface. It is subdivided into IA (earlier) and IB (later).

II. *The Megalithic culture*, an Iron Age culture identical with that of the local megalithic tombs and pit-circles, extending to a further height of 3-4 feet.

III. *The Āndhra culture*, extending to the surface, a further height of 2½-3½ feet.

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[1] A horizontal division in the filling at this point (cf. Megalith II) was not observed but *may* have been present.

(*b*) *Chronology*

The three cultures, I–III, were interlocked by significant overlaps. For example, a pot-burial of the type characteristic of I was found in the lowest of the occupation-layers of II; and in diminishing quantities potsherds of I occur almost throughout the strata of II. Again, at the junction of II and III are layers containing an intermixture of the two cultures on a scale which can only imply a measure of contemporaneity.[1] In other words, cultures I–III represent a continuous occupation of the site through three successive phases, and can therefore be interrelated chronologically.

The fixed point in the dating of the sequence is the firm fact that the so-called Āndhra culture was flourishing in the latter half of the first century A.D. This is shown by two main pieces of evidence:—

(i) At Chandravalli (Chitaldrug), with many Sāṭavāhana coins five Roman denarii minted in the first half of the first century A.D. have been found on a town-site of which the major occupation represents the distinctive features here labelled the 'Āndhra Culture'. One of the coins, a denarius of Tiberius (minted *c.* A.D. 26–37), was found in 1947 under closely observed conditions in a layer pertaining to this culture (p. 287). Another, a coin of Augustus (minted *c.* 2 B.C.–A.D. 11), was found by Dr. Krishna in 1928 in 'Excavation no. 15' with yellow-painted pottery at a low, but not the lowest, level of this culture.[2] Whatever the precise chronological value of these Roman coins (see below, p. 287), they at least show that the Āndhra material with which they are associated cannot be earlier than the first half of the first century A.D. It may be later.

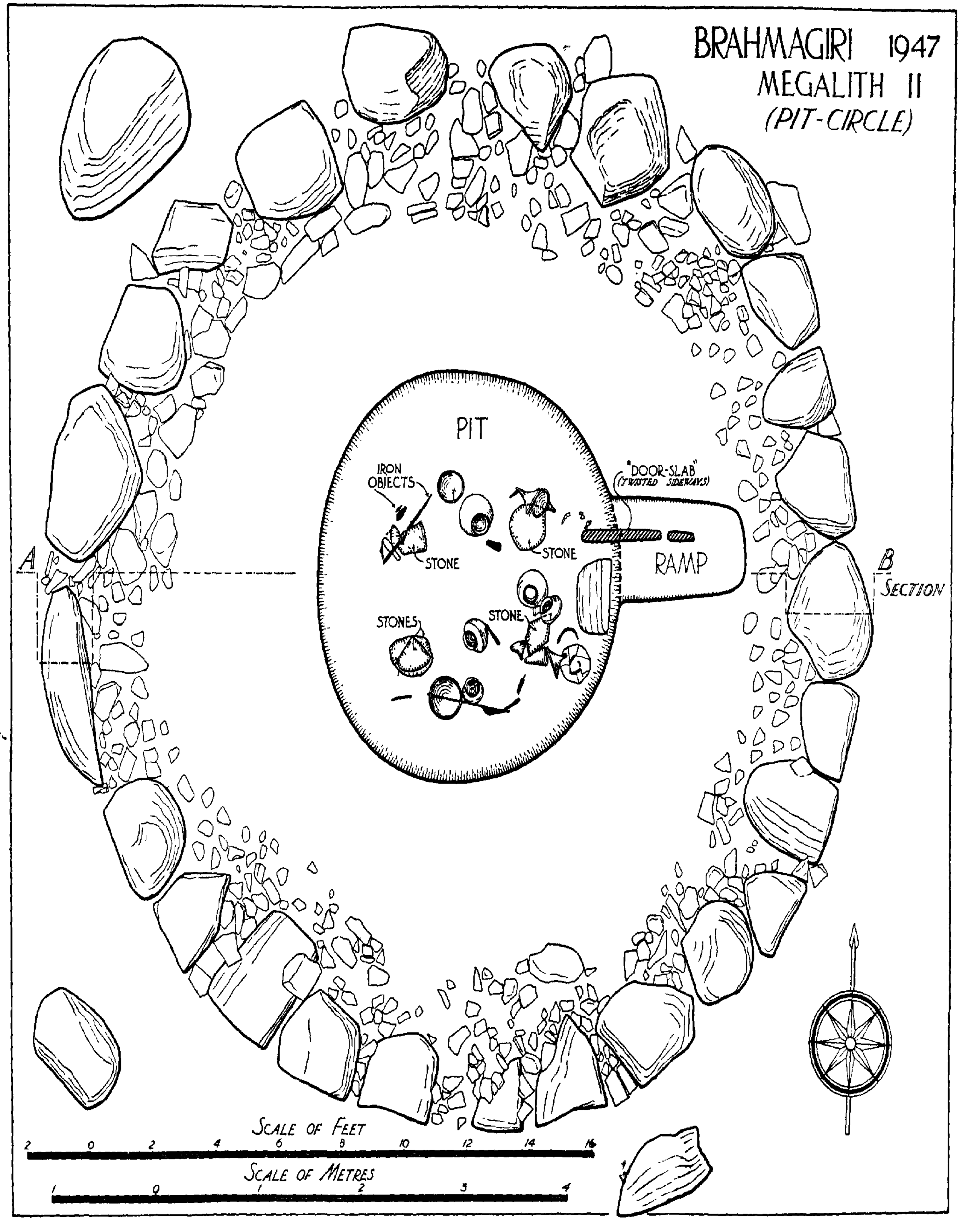
(ii) Dishes of an individual type bearing concentric rings of rouletted pattern round the interior of the base—the so-called 'rouletted ware'—form a part of the equipment of this culture at Chandravalli and at Brahmagiri. At the former site probably and at the latter site definitely, they occur down to the lowest stratum of the culture. This rouletted ware was dated in 1945 at Arikamedu (Pondicherry) by its association with imported Arretine ware of the second quarter of the first century A.D. Moreover, the very distinctive rouletted pattern, which is otherwise foreign to Indian ceramic, is characteristic of Arretine ware and was certainly derived in India from it. The Indian rouletted ware is therefore in origin unlikely to be earlier than the first or second quarter of the first century A.D.; and, if the evidence of our two sites is typical, the Āndhra culture in which it occurs there cannot itself be of earlier date. Without any large margin of error, the beginning of the culture (at these hinterland sites) may be ascribed to a date little, if at all, earlier than the middle of the first century A.D. This dating is on historical grounds sufficiently probable; the period seems to have been one in which the Sāṭavāhana power in Āndhradeśa was in the ascendant. (On the historical aspects, see the remarks by Dr. N. P. Chakravarti, above, p. 21.)

If then, as is reasonably certain, the Āndhra culture began at Brahmagiri towards the middle of the first century A.D., the local Megalithic culture ended at or near that date. How far back we should place the beginning of the latter culture is less easy to determine.

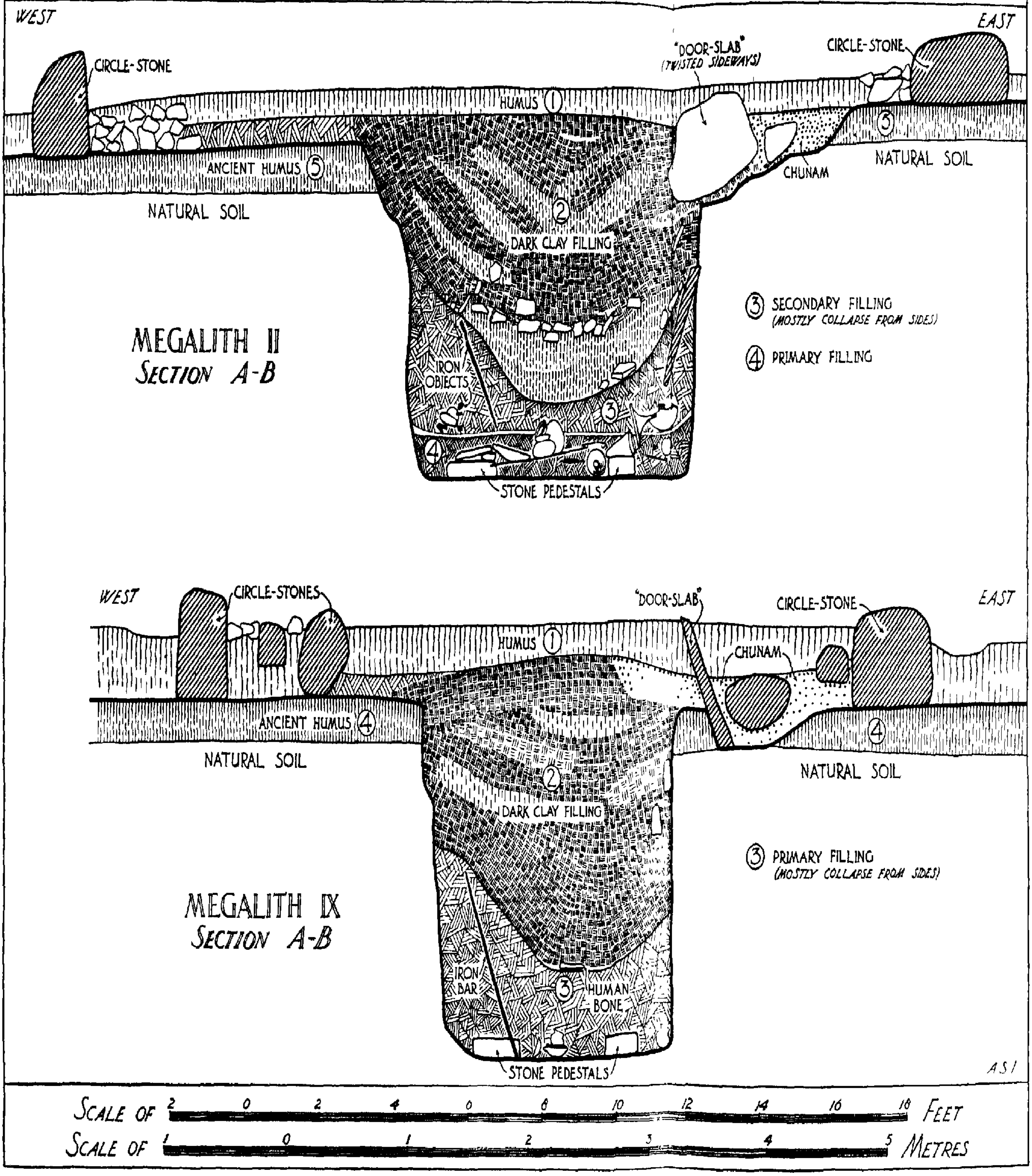
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[1] Corroborative evidence for this overlap has recently (1947) been provided by Arikamedu (Pondicherry) where, in an excavation supplementary to that of 1945, J. M. Casal has found a variant 'Megalith' ceramic (without actual megaliths) under and overlapping the distinctive Arikamedu culture of the first century A.D. Similarly at Chandravalli, a 'Megalith' ceramic overlaps the beginning of the Āndhra culture, here ascribed to the middle of the first century A.D. (see below, p. 271).

[2] *Excavation at Chandravalli* (Mysore Arch. Dept., 1931), pp. 24-5. The denarius is of the type represented in *Coins of the Roman Empire in the Brit. Mus.*, *I*, *pl.* 13, 7–20.


BRAHMAGIRI 1947
MEGALITH II
(PIT-CIRCLE)
PIT
IRON OBJECTS
STONE
STONE
STONES
STONE
"DOOR-SLAB" (TWISTED SIDEWAYS)
RAMP
A
B
SECTION
SCALE OF FEET
2 0 2 4 6 8 10 12 14 16
SCALE OF METRES
1 0 1 2 3 4

BRAHMAGIRI, 1947: *SECTIONS THROUGH PIT-CIRCLES*



fashion. As the evidence stands at present, I find it easier to suppose that the northward move of the Megaliths occurred later, in the chaos which followed the death of Aśoka, *c.* 236 B.C., when the Mauryan empire melted away and a Dark Age settled upon the Deccan for some three centuries. That Dark Age, following characteristically upon the break-up of a 'universal state', is an appropriate context for a folk-wandering which may reasonably and logically have led to a partial settlement of the Deccan in force by the Megalithic southerners.

Accordingly, I date the megaliths of Brahmagiri to the period *c.* 200 B.C. (or a little later)–A.D. 50. Be it noted that this provisional dating applies *only to the Brahmagiri group*, and involves the implication that elsewhere, presumably further south or west, are other port-holed cists of earlier date.

How far back behind *c.* 200 B.C. we should carry the beginning of the Brahmagiri Stone Axe culture, it is scarcely profitable to conjecture. At one point, low down in the accumulation, there appears to have been an interruption in the occupation (below, pl. CV A), but the extent and significance of this interruption are unknown. It does not break the continuity of the main elements of the culture, but marks the end of the painted and incised pottery which occurs in the lower sub-phase (IA). It may be suggested that the 7–9 feet of strata carry the culture as a whole back into the earlier half of the first millennium B.C., but more evidence must be awaited.

In summary, then, our chronology for the occupation of the town-site is as follows:—

I. *Brahmagiri Stone Axe culture*: Early first millennium B.C. (?) to the beginning of the second century B.C., continuing as a dwindling sub-culture through most of the succeeding Megalith phase.

II. *Megalithic culture*: After *c.* 200 B.C. to the middle of the first century A.D., overlapping the Āndhra culture.

III. *Āndhra culture*: About the middle of the first century A.D. to the third century.

(*c*) *Main characteristics of cultures I–III*

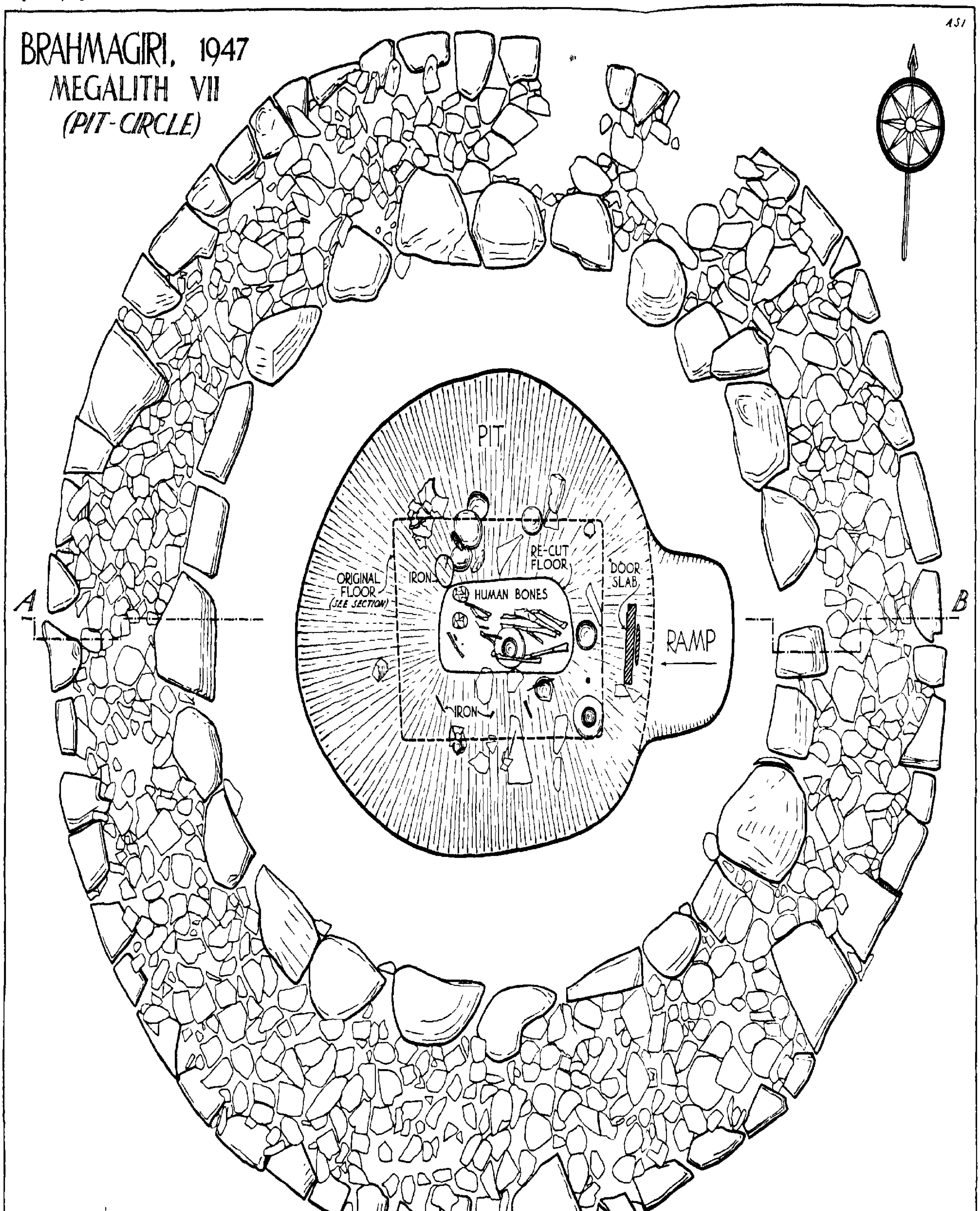
I. The *Brahmagiri Stone Axe culture* is characterized throughout by the presence of polished pointed-butt axes of Trap rock; some of the earlier examples are distinguished by a flattened section, but a lenticular section is normal. The axes were associated with numerous crude microliths of jasper, flint, agate, common opal and rock-crystal, amongst which specialized types such as the trapeze, triangle and crescent were very rare or entirely absent (see below, p. 250).

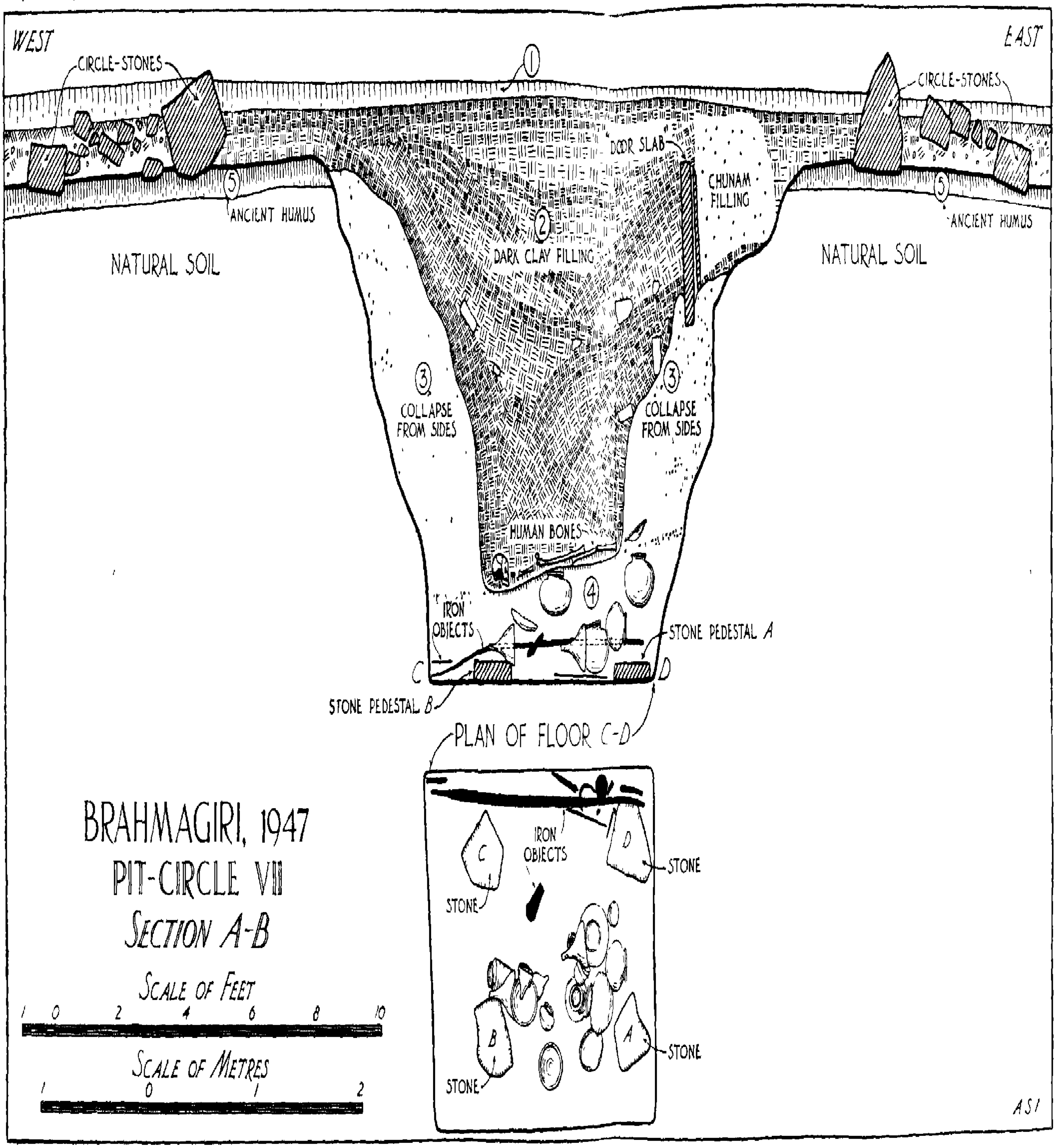
A copper chisel found midway down in the accumulation and two small rods, one of copper and one of bronze, the latter from a fairly low stratum, indicate both a knowledge and an extreme scarcity of metal. No iron occurred in association with this culture.

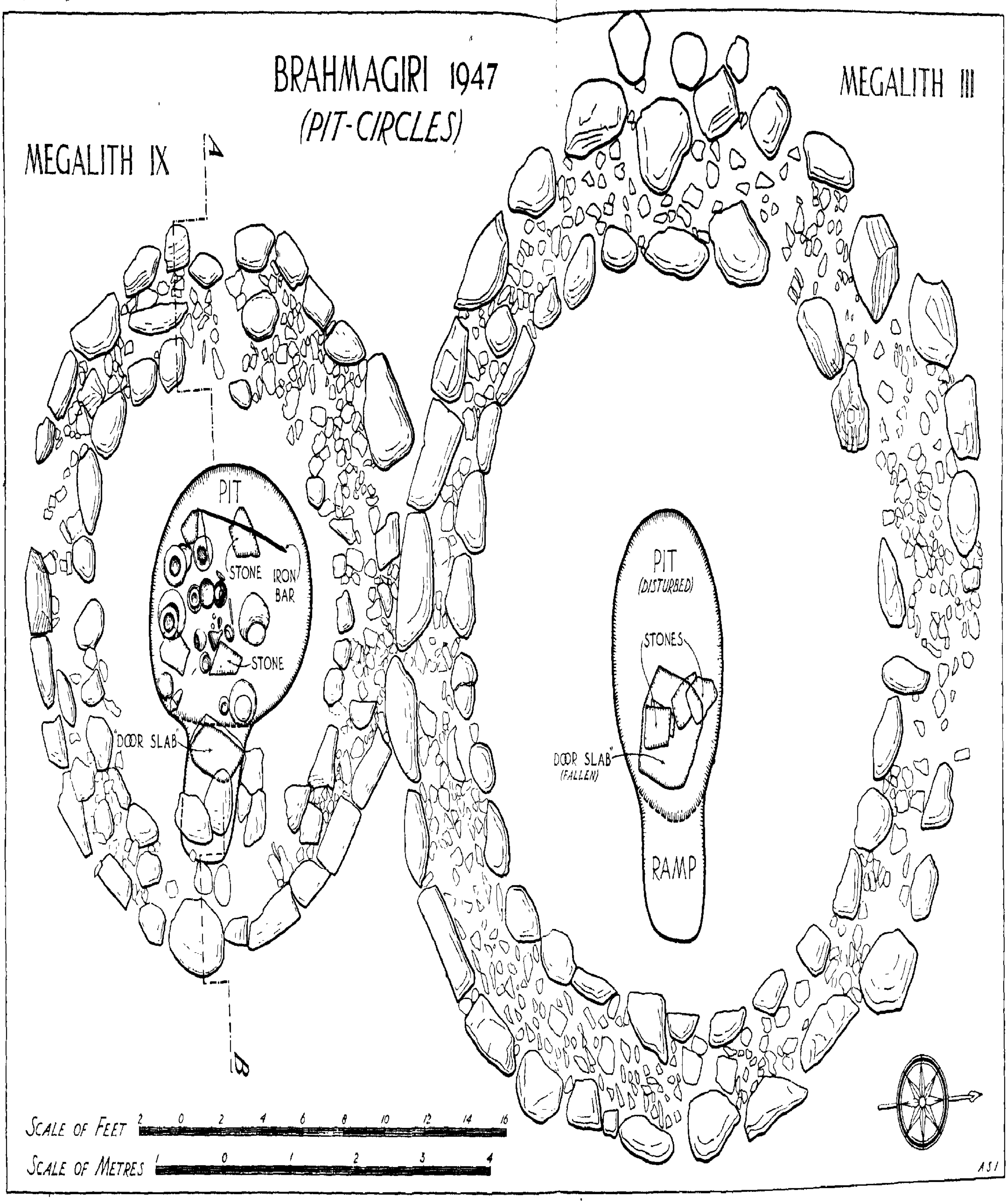
The pottery was invariably hand-made, and for the most part of a coarse grey fabric. Simple globular vessels of an unvarying type ware present throughout. In the lowest stratum, however, which is distinguished as sub-phase IA, were found occasional sherds of painted and incised ware. These wares were absent from the upper strata of the culture, which are classified as IB. Between IA and IB is a weathered surface (pl. CV A).

Burials were of two kinds. For infant-burials, which were numerous, large roughly made urns of uniform type (pl. CVIII) were used, the child or infant being folded up into close compass and packed into the pot.

Two other inhumation-burials were found, both extended, but only one of them (of a child 8–10 years old) could be completely uncovered (pl. CIX B). The head lay towards the east (95° magnetic); two earthen bowls were placed near the upper ends of the two femurs, and a vessel with a funnel-spout lay above the skull (see p. 229). Whether this


BRAHMAGIRI, 1947
MEGALITH VII
(PIT-CIRCLE)
ASI
PIT
RE-CUT FLOOR
ORIGINAL FLOOR (SEE SECTION)
IRON
HUMAN BONES
DOOR SLAB
RAMP
IRON
A
B
SCALE OF FEET
2 0 2 4 6 8 10
SCALE OF METRES
1 0 1 2


WEST
EAST
CIRCLE-STONES
CIRCLE-STONES
1
5
ANCIENT HUMUS
5
ANCIENT HUMUS
NATURAL SOIL
NATURAL SOIL
DOOR SLAB
CHUNAM FILLING
2
DARK CLAY FILLING
3
COLLAPSE FROM SIDES
3
COLLAPSE FROM SIDES
HUMAN BONES
4
IRON OBJECTS
STONE PEDESTAL A
C
D
STONE PEDESTAL B
PLAN OF FLOOR C-D
IRON OBJECTS
C
D
STONE
STONE
B
A
STONE
STONE
BRAHMAGIRI, 1947
PIT-CIRCLE VII
SECTION A-B
SCALE OF FEET
1 0 2 4 6 8 10
SCALE OF METRES
1 0 1 2
ASI


BRAHMAGIRI 1947
(PIT-CIRCLES)
MEGALITH IX
MEGALITH III
PIT
STONE
IRON BAR
STONE
"DOOR SLAB"
PIT
(DISTURBED)
STONES
"DOOR SLAB"
(FALLEN)
RAMP
A
B
SCALE OF FEET 2 0 2 4 6 8 10 12 14 16
SCALE OF METRES 1 0 1 2 3 4
ASI

vessel, with its small cylindrical funnel, was used to pour libations into the mouth or ears of the dead, as has been conjectured in the case of the funneled vessels from the Luristān graves,[1] cannot be guessed from an isolated example; but similar vessels in other graves of our Stone Axe culture should be looked for in future excavations.

The primary purpose of the excavation, in the limited time available, being to obtain a vertical culture-sequence with which to equate the local megaliths, no single area sufficiently large to indicate house-plans was cleared. Post-holes, however, indicated that the houses had been mostly of timber, occasionally supplemented by basic lines or low walls of rough granite blocks (pl. CIV). The occurrence of a straight line of post-holes in one of the outtings suggested that some at least of the buildings had been of rectangular plan.

II. *The Megalith culture*, which was intrusive and first introduced iron-working to the locality, was well supplied with tools and weapons. Iron sickles, knives, swords, spears, arrow-heads and wedges were included in the cultural equipment. Polished stone axes and microliths occasionally occur at this level on the town-site but were clearly not in eneral use; they are presumably survivals or overlaps from the previous culture.

The pottery is distinctive in shape and fabric. It is turned on a slow wheel, polished, .d is characteristically black inside and black or, more often, black and red outside, with the black confined to the upper part of the vessel and resulting from inverted firing. This polished black ware has been compared with the distinctive Northern Black Polished Ware, but the comparison is invalid (see below, p. 208).

No stone walls were found in association with this culture. Occasional post-holes indicate a continuance of timber-construction, at least for ordinary domestic buildings.

III. *The Āndhra culture* is characterized by a far more sophisticated ceramic than either of its predecessors and is normally turned on a fast wheel. Apart from the occasional occurrence of rouletted ware referred to above (p. 200), its most characteristic pottery is a range of types, sometimes apparently salt-glazed, with rectilinear decoration (notably, a criss-cross pattern) in white pigment (lime or kaolin) under a wash of russet-coloured ochre.[2] This type of decoration is widespread in the Deccan; it occurs, for example, in layers ascribed to the Āndhra period at Koṇḍāpur and Māski in Hyderabad State, and may indeed be regarded as generally characteristic of the main Āndhra period from sea to sea (see p. 308). In the south, notably in the Coimbatore District, an obviously related fabric is marked by all-over curvilinear instead of rectilinear decoration. I have not yet encountered this curvilinear variety in Āndhradeśa.

At Chandravalli (Chitaldrug), a numerous potin coinage was found with this culture. Such coins are very rare at Brahmagiri,[3] which at this period was evidently a relatively obscure town or village. Both at Brahmagiri and Chandravalli, glass bangles first appear in the Āndhra levels.

(*d*) *Description of the cuttings* (*1947*)

The individual cuttings, named Br. 17–Br. 23 (pl. LXXIII), were as follows. Burials are grouped (p. 224) for description.

Site Br. 17

Five trenches or pits, of which three measured 20 feet by 9 feet and two 20 feet square each, were laid out on this site. The natural soil was reached at an average depth of 10-11 feet below the present surface. The

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[1] A. Godard, 'Les Bronzes du Luristan', *Ars Asiatica*, XVII (Paris, 1931), 90.

[2] Chemist's notes.

[3] None were found here during the 1947 excavations, but one had been picked up previously on the surface.

area was found to have been occupied only by the Stone Axe culture (IA and IB), save for a few Megalithic culture sherds in the uppermost levels. The copper rod referred to above (p. 202) was found in layer 11 at a depth of 5 feet 8 inches below the surface.

No remains of stone structures were found. The presence of several post-holes at various levels indicated timber structures.

Overlying the natural soil was a deposit of dark compact earth mixed with gravel, about 2 feet thick, wherein incised sherds of the IA culture were found. Above this the strata fell into four main groups, separated from one another by deposits of white alluvial clay, presumably representing clay-floors, 6 inches to 1 foot in thickness, which formed a striking feature of the site (see pl. CII). The first group was represented by a deposit of grey earth mixed with gravel and ash, 2 feet thick, containing two burial-urns (T42, p. 228, and no. 9, p. 229). The second group was represented by a series of alternating bands of yellow *kanjūr* and ash, which overlay a deposit of white alluvial clay 6–9 inches thick, wherein were two further urn-burials (T40, p. 228, and no. 7, p. 229). The third group consisted of an earthy deposit 2 to 3½ feet in thickness, containing two more urn-burials (T41, p. 228, and no. 2, p. 229). The fourth group represented the latest occupation of the site; it contained some pot-sherds akin to those from the megaliths, but also yielded two fragmentary burial-urns (nos. 1 and 3, p. 229) of the Stone Axe culture.

Site Br. 18

This site lay at the foot of the hill 210 yards to the south-west of the Aśokan Rock-edict. An area 20 feet square was partially excavated here to the natural soil, which was reached at a depth of 5-6½ feet below the surface. The occupation of the site was confined to the Āndhra culture. Except for a few grooved tiles set on edge, no structural remains were found.

Site Br. 19

This cutting, 20 feet square, was made some 20 yards to the south-west of Br. 18. It was partially carried down to the natural soil, which was met with at an average depth of 6¾ feet below the surface. It was occupied during the Stone Axe and Āndhra cultures but the Megalithic culture was here omitted.

Site Br. 20

This site lay at the foot of the hill 100 yards to the south-west of Br. 19. The area excavated measured 20 feet by 10 feet; the natural gravel was reached at a depth of 11¾ feet below the surface. As in Br. 19, the Stone Axe and Āndhra cultures alone were represented.

Site Br. 21 (pls. CIII–CIV, and fig. 8)

Immediately to the north-west of Dr. Krishna's 1942 excavation was laid out a trench 30 feet long and 14 feet wide. This and an adjoining cutting, Br. 22 (below p. 207), were exceptionally complete and productive; the results summarized above were obtained largely from them.

Br. 21 revealed the three main cultures in clear interrelationship (fig. 8). Layer 20 is the natural bed-rock, with an ancient overlying humus. Layer 19, which is hard black soil, yielded, in addition to the grey ware of the Stone Axe culture, an individual group of painted potsherds, here named the 'Early Painted' pottery (p. 222 and pl. CVII), which characterize the IA sub-phase of the Brahmagiri Stone Axe culture. The IB sub-phase of the culture began with layer 18 and continued uninterruptedly up to layer 8, beyond which it thinned out until it ceased after layer 6. Layer 15 yielded a group of three neoliths (pl. CV B), while layer 13 produced a copper chisel (Fig. 41, 3). Three burial-urns (T36 and T37, p. 226, and no. 1, p. 229) were also obtained from the IB levels.

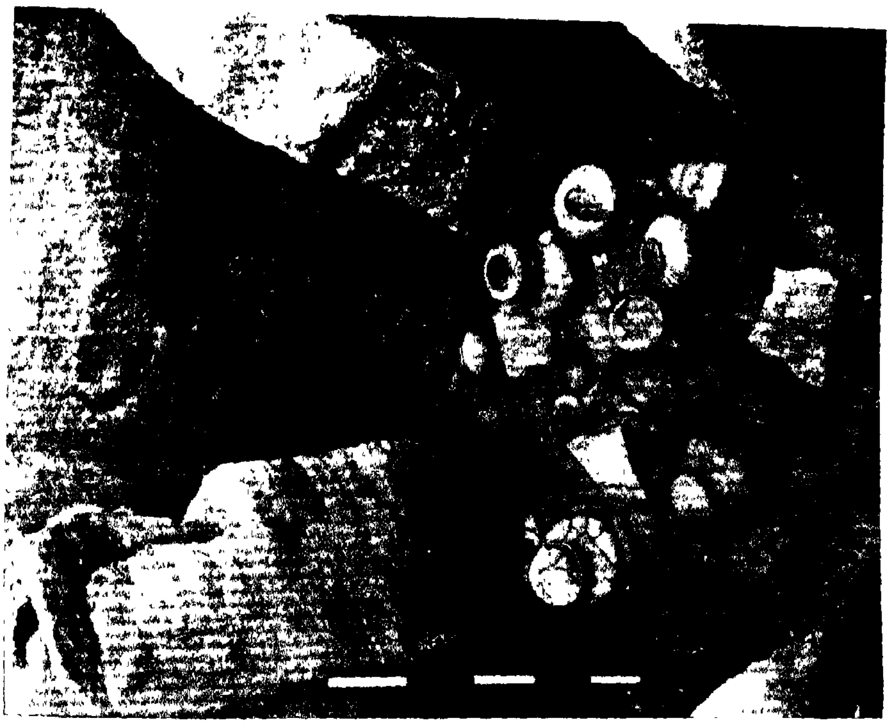
The Megalith culture, which appeared fully fledged on this site, overlapped the Stone Axe culture. It began with layer 8 and continued up to layer 4. The Āndhra culture, which in turn overlapped the Megalithic, began with layer 6 and continued through the uppermost levels of the site. Since the digging was essentially vertical and not horizontal, no plans of structures were obtained, although traces of stone-rubble foundations at three different levels in the Polished Stone Axe culture and at one in the Megalith culture were obtained.

Since this cutting produced the completest and clearest sequence of strata, it has been selected for special illustration (fig. 8, and pls. CIII–CIV), and an analytic table is subjoined (p. 206).

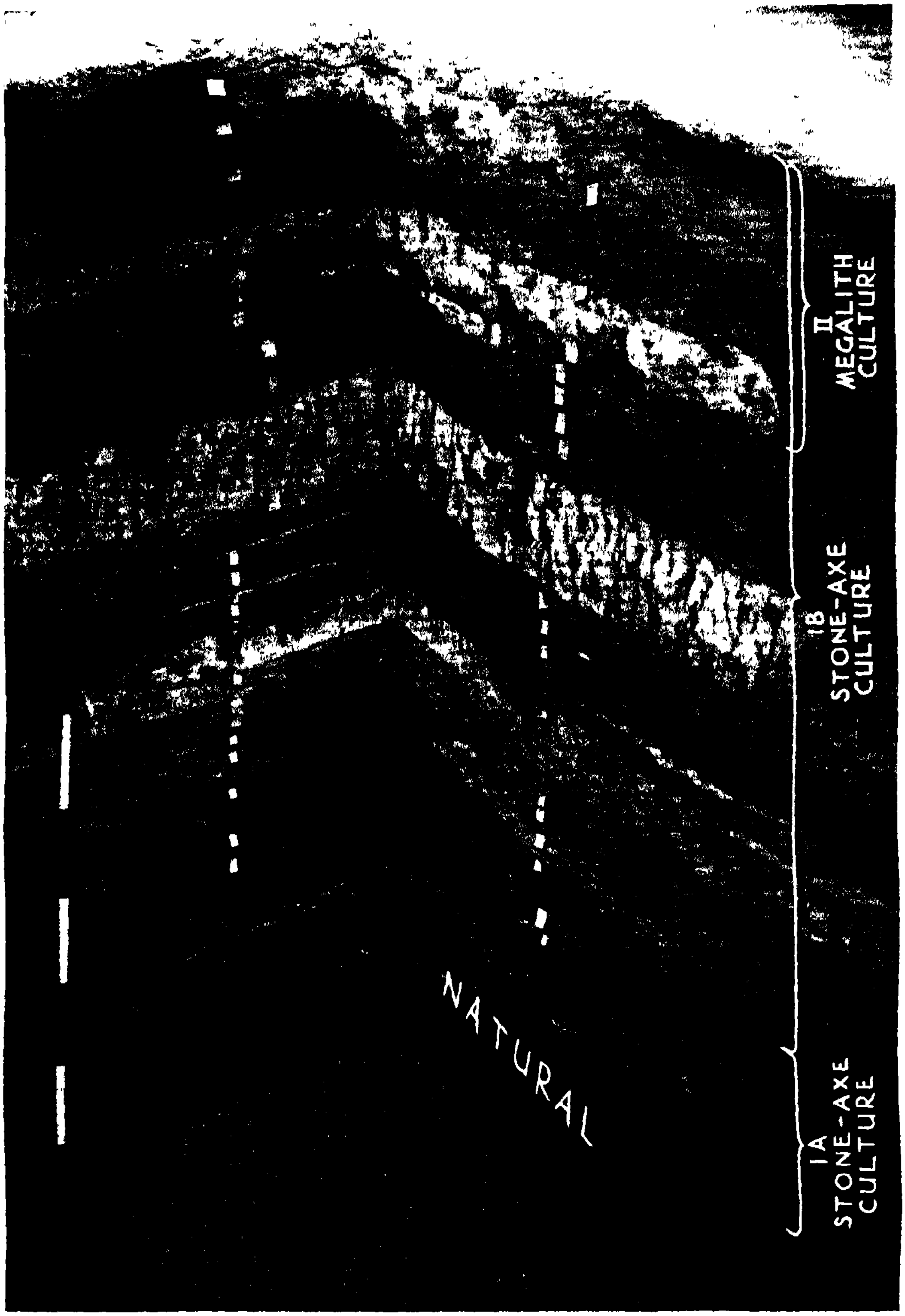
PLATE CI



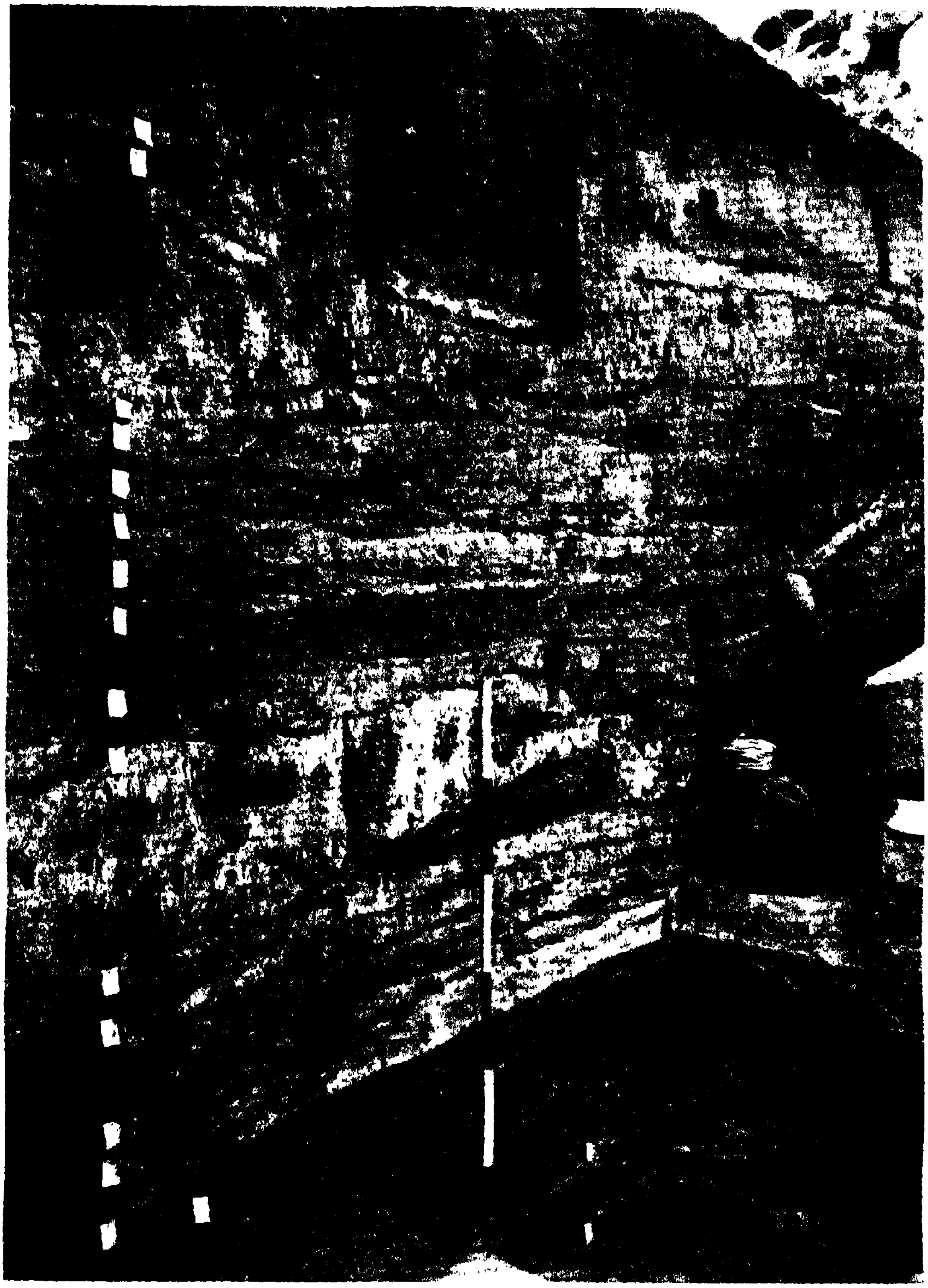
B. *Brahmagiri: gold beads, copper bracelets, conch-shell and human bones in megalith IX*



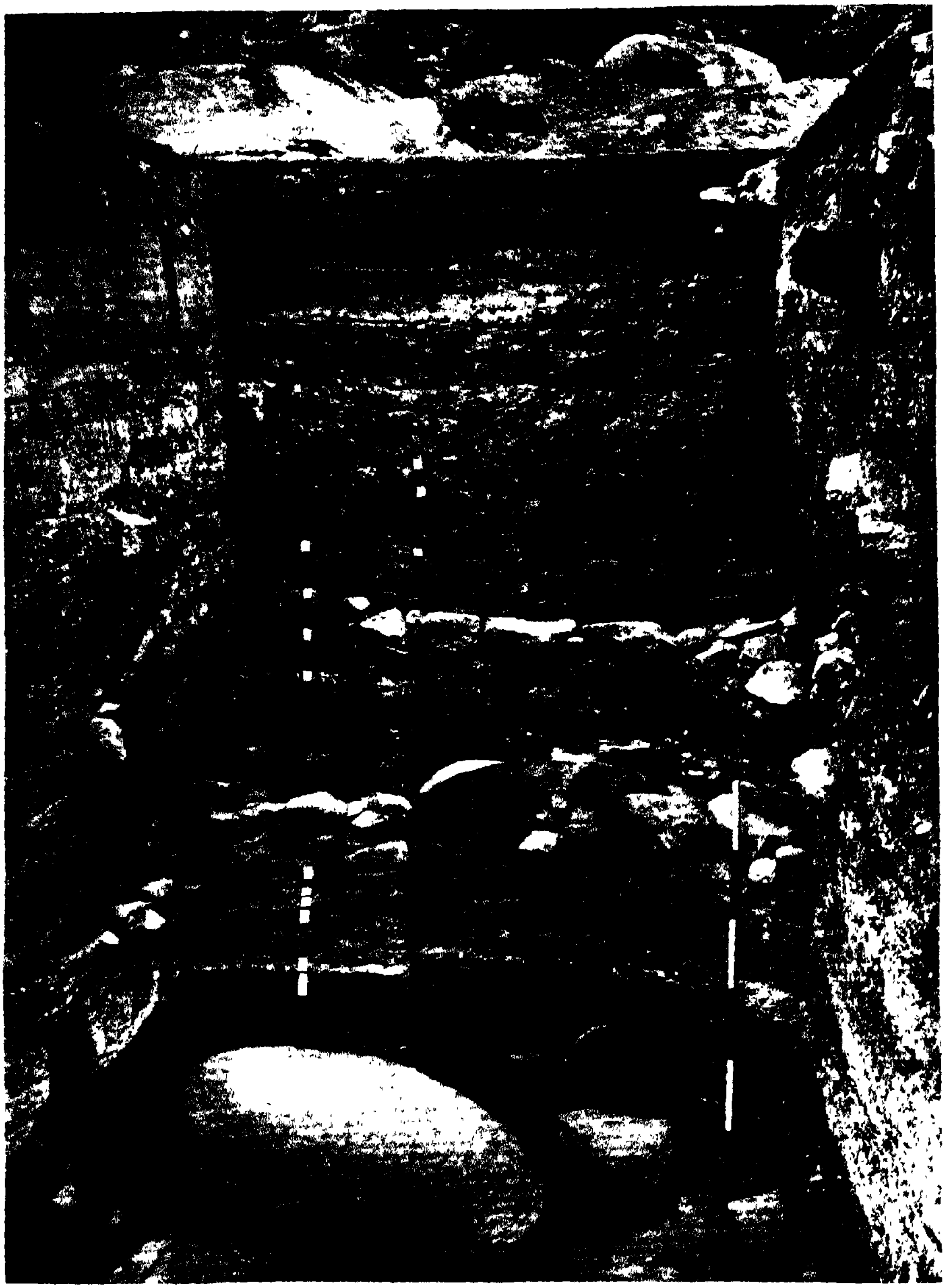
A. *Brahmagiri: megalith IX, pit-floor showing pottery and four base-stones*



Brahmagiri: cutting Br. 17, showing incidence of cultures



Brahmagiri: cutting Br. 21. (*Cf. fig. 8.*)



Brahmagiri, section through the town-site, Br. 21. (Cf. fig. 8.)

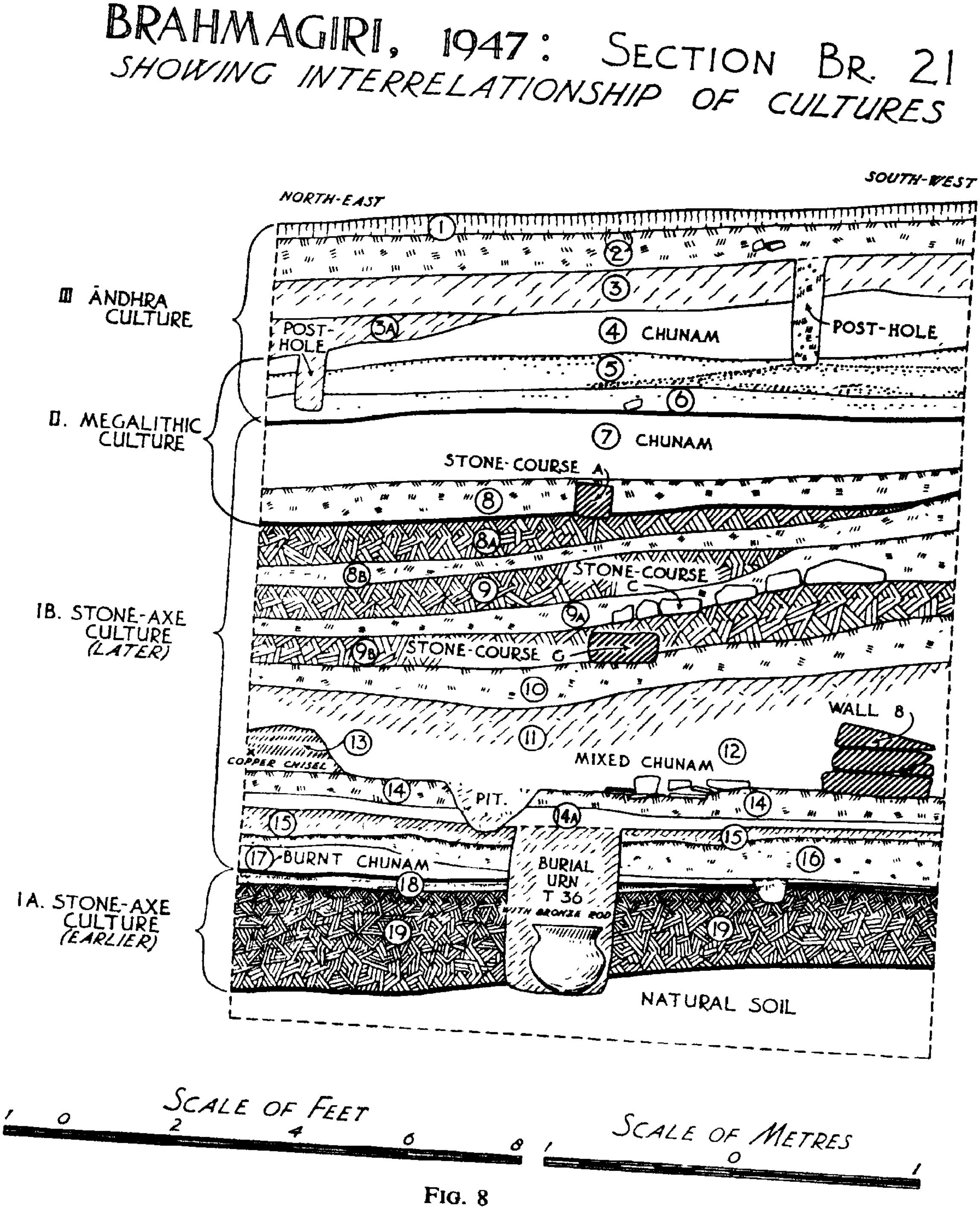

BRAHMAGIRI, 1947: SECTION BR. 21
SHOWING INTERRELATIONSHIP OF CULTURES
NORTH-EAST
SOUTH-WEST
III ĀNDHRA CULTURE
II. MEGALITHIC CULTURE
IB. STONE-AXE CULTURE (LATER)
IA. STONE-AXE CULTURE (EARLIER)
POST-HOLE
POST-HOLE
CHUNAM
CHUNAM
STONE-COURSE A
STONE-COURSE C
STONE-COURSE G
WALL 8
COPPER CHISEL
MIXED CHUNAM
PIT
BURNT CHUNAM
BURIAL URN T 36
WITH BRONZE ROD
NATURAL SOIL
SCALE OF FEET
SCALE OF METRES

FIG. 8

Table showing the frequencies of sherds of the three cultures, layer by layer from top to bottom, in cutting Br. 21 (fig. 8)

LAYER	I. STONE AXE	II. MEGALITHIC	III. ĀNDHRA
1	....	....	52, including 1 yellow-painted sherd
2	....	....	384, including 10 yellow-painted sherds
3	....	....	480, including 68 yellow-painted and 1 rouletted sherd
3a	....	....	67
4	....	36	269, including 51 yellow-painted sherds
5	....	68	219, including 10 yellow-painted sherds[1]
6	26	115	405, including 7 yellow-painted sherds
7	63	407	....
8	150	199[2]	....
8a	36	....	....
8b	89	....	....
9	76	....	....
9a	196	....	....
10	46	....	....
11	33	....	....
12	23	....	....
13	26	....	. ..
14	48	....	....
14a	15	....	...
15	198	....	....
16	7	....	....
17	45	....	....
18	25	....	....
19	321[3]	....	....

[1] In adjacent cuttings, layers equating with 5 and 6 of Br. 21, i.e. the lowest 'Āndhra' levels, produced 7 sherds of rouletted ware.

[2] In an adjacent cutting, the layer equating with this contained an urn-burial of the 'Stone Axe' culture.

[3] Including 18 'Early Painted' and 6 incised sherds of the IA culture, which this layer represents.

Site Br. 22

This cutting lay 32 feet to the north-west of Br. 21. It measured 30 feet long and 14 feet wide; the natural soil was reached at an average depth of 12 feet below the surface.

As stated above, this cutting also presented a comprehensive picture of the successive cultures available at Brahmagiri. 'Early Painted' sherds typical of the IA culture were obtained from layer 15. The IB sub-phase began with layer 14 and continued up to layer 6; whilst the Megalithic culture, which overlapped the Stone Axe culture, made its appearance in layer 8 and continued up to layer 4. The Āndhra culture began with layer 6 and lasted till the uppermost levels of the site.

Sites Br. 21A and 22A

A trench 9 feet wide was laid out between Br. 21 and Br. 22 to connect the strata of the two cuttings. The southern half of it was named 21A, the northern half 22A. The three main cultures were represented, but the only notable discovery here was that of a burial-urn (T43, p. 228) of the Stone Axe culture in an otherwise Megalithic level, further convincing evidence for the overlap of the two cultures (above, p. 200).

Site Br. 23

This cutting, 24 feet long and 12 feet wide with three sub-trenches, lay 64 feet to the north-west of Br. 22. The natural soil was reached at an average depth of 10½ feet below the surface. The cutting did not prove of much stratigraphical value since most of the area was covered by a series of fairly late pits. The earliest levels, however, which were undisturbed, yielded the largest number of 'Early Painted' sherds found during the work. They lay in close association with polished stone axes and Trap-rock flakes. As a whole, the Stone Axe culture was fairly well represented, but the occupation here in the Megalithic period was slight. On the other hand, the Āndhra culture was fully represented.

An incidental discovery of interest was that of a road of stone rubble (pl. LXXII B), 17-18 feet wide, in the latest level of the site. It was terraced at intervals to conform with the slope.

Sites Br. 16A and Br. 16B

In his 1942 excavation on a site then named Br. 16, Dr. Krishna had reached the natural soil only in a limited area. Accordingly, in 1947, the Mysore Archaeological Department, working with the Archaeological Survey, did some further clearance in the western part of the same cutting, naming these clearances Br. 16A and Br. 16B. The natural soil was reached at an average depth of 14 feet below the surface. Four burial-urns (T38 and T39, p. 226, and nos. 3 and 4, p. 229), of the Stone Axe culture were obtained.

(iii) THE POTTERY FROM BRAHMAGIRI

As in the description of the sites, so in that of the pottery, the evidence of the megalithic structures will be dealt with first, since it is upon the Megalith culture that the present investigation is focussed. Subsequently the ceramic material from the town-site will be considered in its stratigraphical sequence, and the Megalith sherds found there will take their proper chronological place.

(*e*) *Pottery from the cists and pit-circles* [1]

A general survey of the pottery from the cists and pit-circles at Brahmagiri reveals the cultural unity of the two classes of monuments. The black-and-red technique and the polished surface, normal characteristics of megalithic pottery in India, are common to both, as are certain of the ceramic types, notably Types P13 and C13, P14 and C14, P19 and C19 and variations of P20 and C20.

[1] This and the following sections on the pottery have been prepared mainly by Mr. S. C. Chandra.

On the other hand, it must be noted that a number of types are peculiar to the one or the other class. Thus the following types present in the cists are absent from the pits: Types C1–C12, C15–C18 and C21–C30. Likewise, the following types present in the pits are absent from the cists: Types P1–P12, P15–P18 and P21.

Funnel-shaped lids in black ware, tulip-shaped vases both in black and black-and-red, lipped bowls, cups-on-stand and the big narrow-mouthed jars with pointed bases are the striking and peculiar types from the pit-circles, while small double-knobbed lids and three-legged vases in dull red ware are equally peculiar to the cists. Fillets of cord-like impressions on the rim are peculiar to the big pots from the pit-circles. On the other hand, incised herring-bone patterns are common to the red-ware vases from both, though more frequent in the pit-circles than in the cists. From the chronological standpoint, however, this partial differentiation between the ceramic types of the cists and those of the pit-circles is discounted by the evidence of the town-site. There, types peculiar to the cists—C2, C5, C7 and C18—occur in the same occupation-layer as types peculiar to the pit-circles—P1, P3, P10, P11 and P21. The differentiation noted above is therefore one of usage, not of chronology. It has been suggested (p. 196) that the exposure of pots containing offerings in or beside the open pits induced the employment of certain types (notably, heavy lids) not required in the closed pits, and there are doubtless other factors which cannot now be inferred.

The black-and-red ware (pl. CVI)[1] from the megaliths is generally fine, well baked, and brightly polished. The clay used gives a fine paste, and sand, quartz, husk or other tempering material is very sparingly used. The pots are wheel-turned, seemingly on a slow wheel. The black polished ware, distinctive of the pit-circles, seems to have been fired at a low temperature [2] as it weathers much sooner than the red. This black ware of the megalithic sites of South India and the Deccan has been compared to the typical black polished ware well known from northern Indian sites,[3] but it should be stressed that the two wares are readily distinguishable. The northern black ware has a fine fabric, is very well fired, has a polish giving almost a metallic lustre, and is shaped on a fast wheel; while the black megalithic ware is coarser, less well fired, usually not so highly polished and is normally potted on a slow wheel.[4] The dull terracotta red ware, usually with a pale drab slip, burnished in a few cases, is common both to the cists and to the pit-circles, though more frequent in the former than in the latter.

The Megalith pottery is usually plain and utilitarian in character. Decoration, when present, is simple and primitive, the commonest being bands or fillets of cord-like impressions

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[1] The black-and-red effect is due to inverted firing. The upper portion of the pot is thus in contact with the reducing agents present in the combustible materials and turns black, whilst the lower portion is exposed to the air and turns red as a result of oxidization.

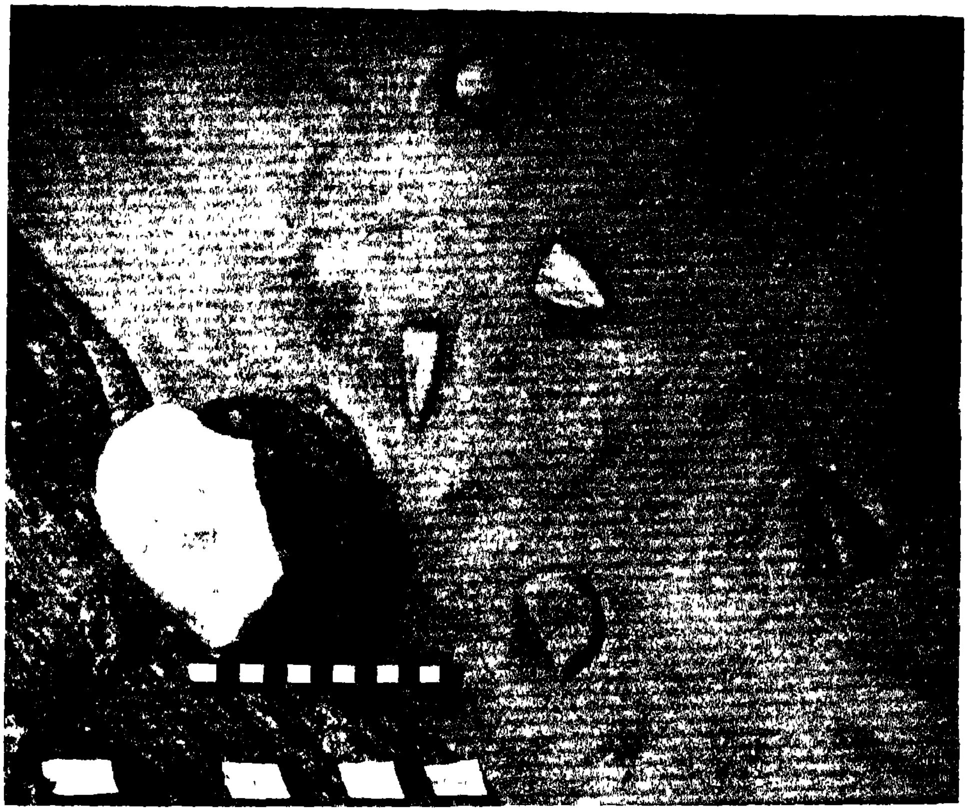
[2] Chemist's notes.

[3] K. de B. Codrington in *Man*, 1930, no. 139 (p. 190). For the Northern Black Polished Ware, see *Ancient India*, no. 1 (1946), p. 55.

[4] The Archaeological Chemist reports on the difference as follows: 'After turning on the wheel, the pots of the Northern Black Polished Ware appear to have been subjected to elaborate rubbing and burnishing, and then coated with a finely levigated, highly ferruginous clay, and again burnished to smooth the surface. The pots were then fired under reducing conditions to a temperature producing an incipient fusion of the slip. This accounts for the exceptional hardness and lustre of the pots. In the Megalithic black ware (Southern Black Polished Ware) the pots were not finished with so much care. A thin wash of ocherous clay seems to have been applied, and the pots fired in a reducing atmosphere at a lower temperature than in the case of the Northern Black Polished Ware. The slip in the latter stands out as a distinct layer, whereas in the former it is notably less distinct.'



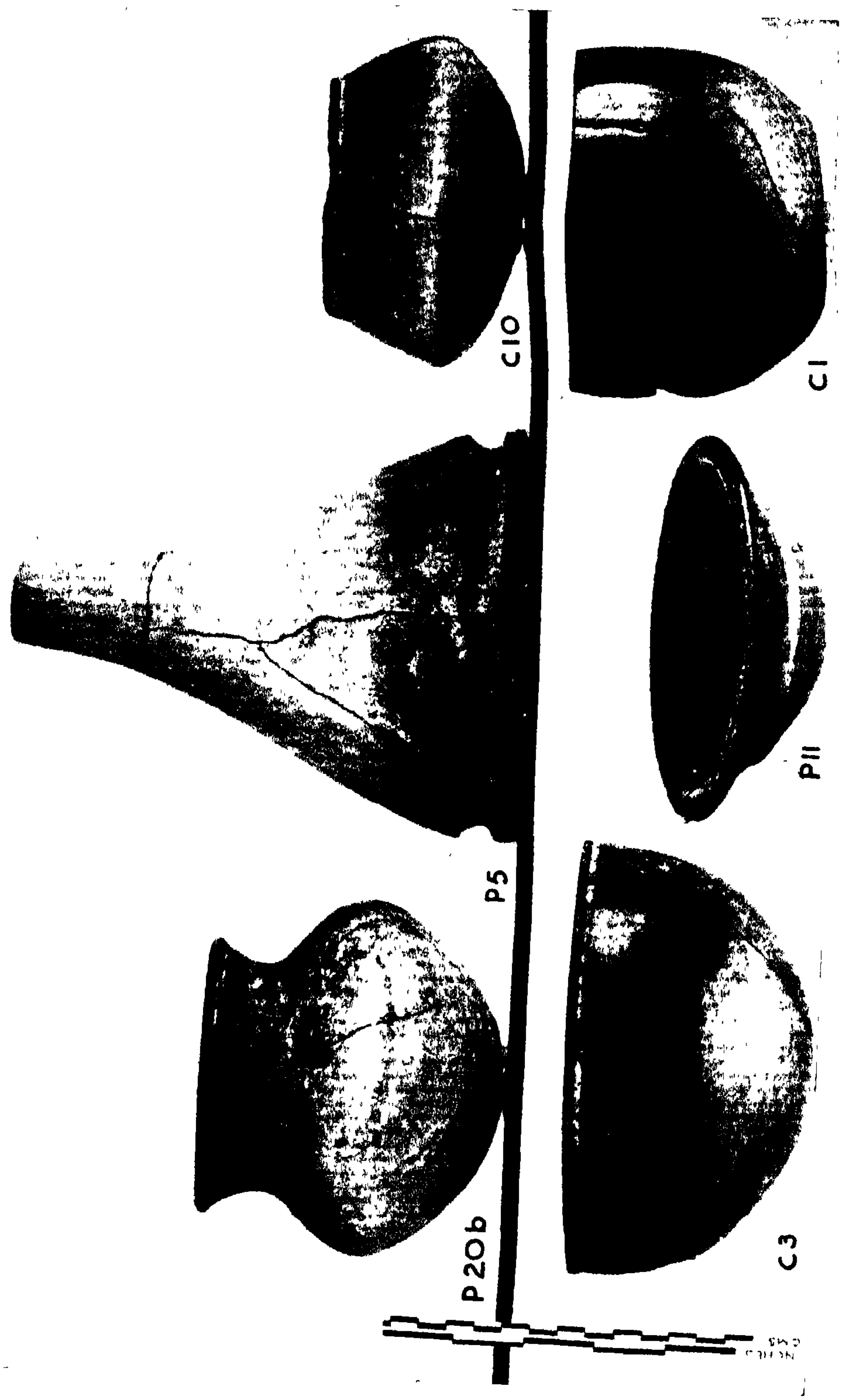
A. *Section showing weathered surface (18) on layer (19) containing Brahmagiri 'Stone Axe' culture IA*



B. *Brahmagiri: polished stone axes* in situ *in cutting Br. 21, layer 15 (see fig. 8).* (Scale of inches.)

PLATE CVI

To face page 209



Brahmagiri: black-and-red Megalithic pottery

on the rim and incised herring-bone or bipinnate leaf impressions on the body. No painted pottery was found either in the cists or in the pit-circles at Brahmagiri, but a large painted jar, decorated in black on a dull red slip was included in a group of Megalith pottery deposited prior to the construction of megalithic cist VI (below, p. 221).

A number of the pots bear graffiti, all subsequent to firing (p. 244).

The following is a classification of the pottery-types from the cists.[1]

Figs. 9–12

Type C1: A partially straight-sided bowl of black-and-red ware with a thin sharpened rim and an almost flat base. Variant C1*a* has wider sides. Variant C1*b* is of thicker ware and has a convex profile. Variant C1*c* is thinner in section, while Variant C1*d* is a diminutive form of the principal type. This is one of the most common types from the cists. Analogies come from the Ādichanallur urn-field in the Tinnevelly Dist.[2] and the Narsipur Sangam urn-field in Mysore.[3]

Type C2: A bowl of black-and-red ware with a thin sharpened rim like that of the previous type. It is distinguished by a prominent groove round the body and markedly convex base.

Type C3: A simple bowl of black-and-red ware with an externally grooved and slightly everted rim and a round base. It is weakly grooved on the outside. The example illustrated is characterized by graffiti executed after firing. Variant C3*a* is smaller than the main type. Variant C3*b* has two weak grooves on the body. Variant C3*c* is distinguished by a slightly concave base, while C3*d* has a constricted base. Variant C3*e* lacks the external groove at the rim of the main type and has a bulged body with prominent grooves.

Type C4: A straight-sided bowl of black-and-red ware with a slightly flared rim and a rounded base. Only one example of this type was found.

Type C5: A straight-sided bowl of black-and-red ware with a beaded rim and a flat base. It is characterized by two prominent grooves on the body. Variant C5*a* (distorted in baking) is more semicircular in profile. The only example is marked by graffiti executed on the exterior after firing.

Type C6: A bluntly carinated bowl of black-and-red ware with a sharpened rim and a slightly concave base. Variant C6*a* is externally grooved and has a rounded base. Only one example each of the type and its variant was found.

Type C7: A bowl of black-and-red ware with a thin sharpened rim, a slight ledge round the body and a round base. Variant C7*a* lacks the ledge of the main type but has a prominent groove. Variant C7*b*, the only example of which bears post-firing graffiti, is convex above the groove. Variant C7*c* has thinner sides and more regular profile. Variant C7*d* lacks the groove on the body. The type as a whole is fairly abundant at Brahmagiri but analogies elsewhere are hard to find.

Type C8: A bowl of black-and-red ware with a segmental profile, sharpened rim and grooved exterior. Variant C8*a* has multiple groovings. Variant C8*b* is slightly deeper. Analogies of this type are common in the urn-fields of the Tinnevelly District.[4]

Type C9: A unique bowl of black-and-red ware with a slightly everted rim, bluntly carinated profile and rounded base. It has grooves on the body.

Type C10: A rare type of bowl of black-and-red ware, bluntly carinated, with low girth, weakly grooved rim and rounded base. Variant C10*a* is distinguished by multiple groovings on the body. Variant C10*b* has a thin sharpened rim and lacks the external groovings.

Type C11: A carinated lid of dull red ware with a slightly concave profile above and a sagger base. Variant C11*a* is smaller but has a more prominent flange. This type of lid is very common at Arikamedu[5] and elsewhere, and may have had a long life.

Type C12: A rare type of lid of dull red ware with a thin rim, central carination and sagger base. Variant C12*a* has irregular groovings on the inside. Variant C12*b* has a shorter neck.

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[1] C is an abbreviation for 'cist', P for 'pit-circle'.

[2] A. Rea, *Catalogue of Prehistoric Antiquities* (Madras, 1915), pl. VI, 13 and pl. X, 3.

[3] A. Bruce Foote, *Prehistoric and Protohistoric Antiquities* (Madras, 1916), pl. 30, 234, 15.

[4] Rea, op. cit., pl. VI, 12.

[5] *Ancient India*, no. 2 (1946), p. 66.

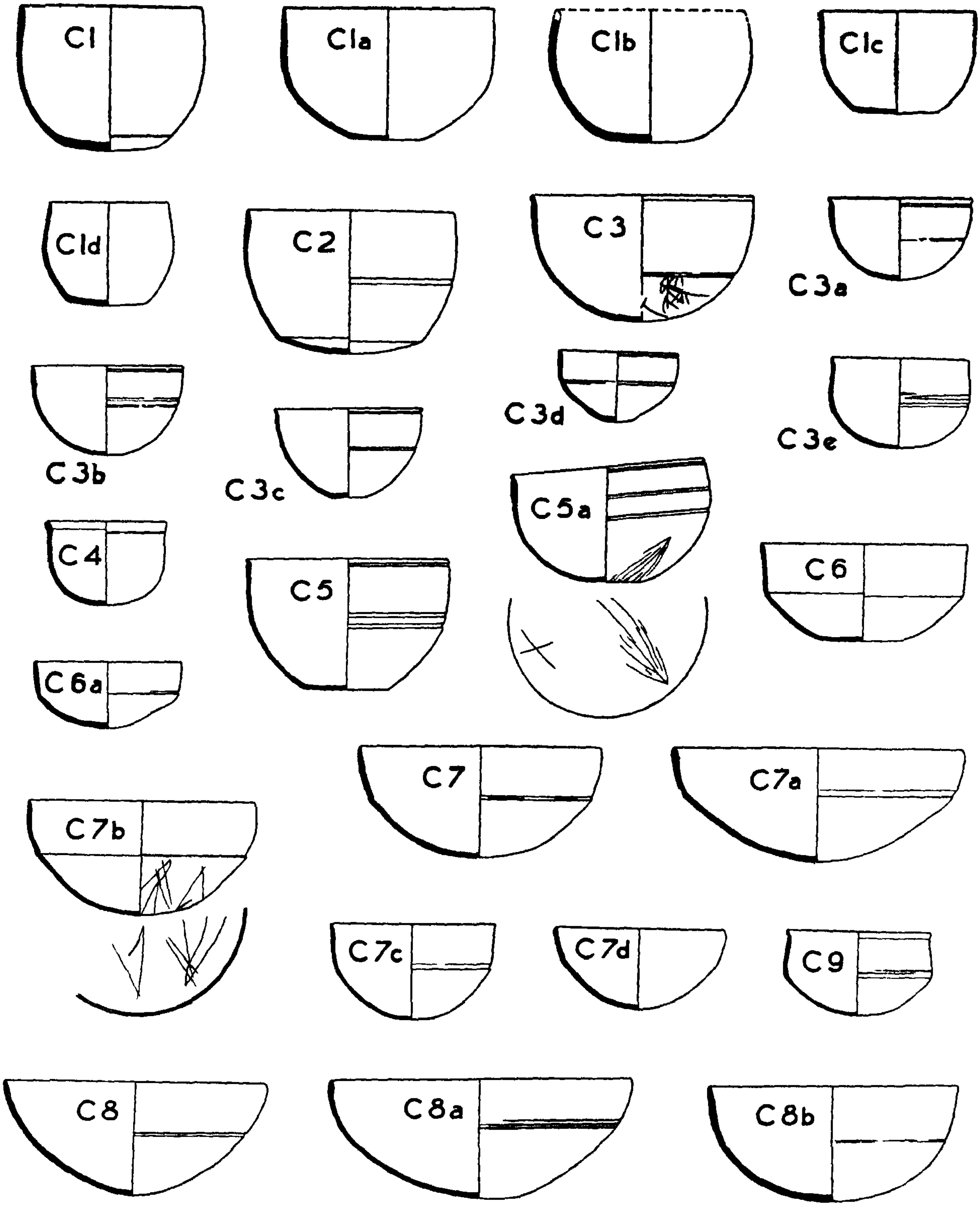


FIG. 9. *Pottery from the Brahmagiri cists.* $\frac{1}{4}$

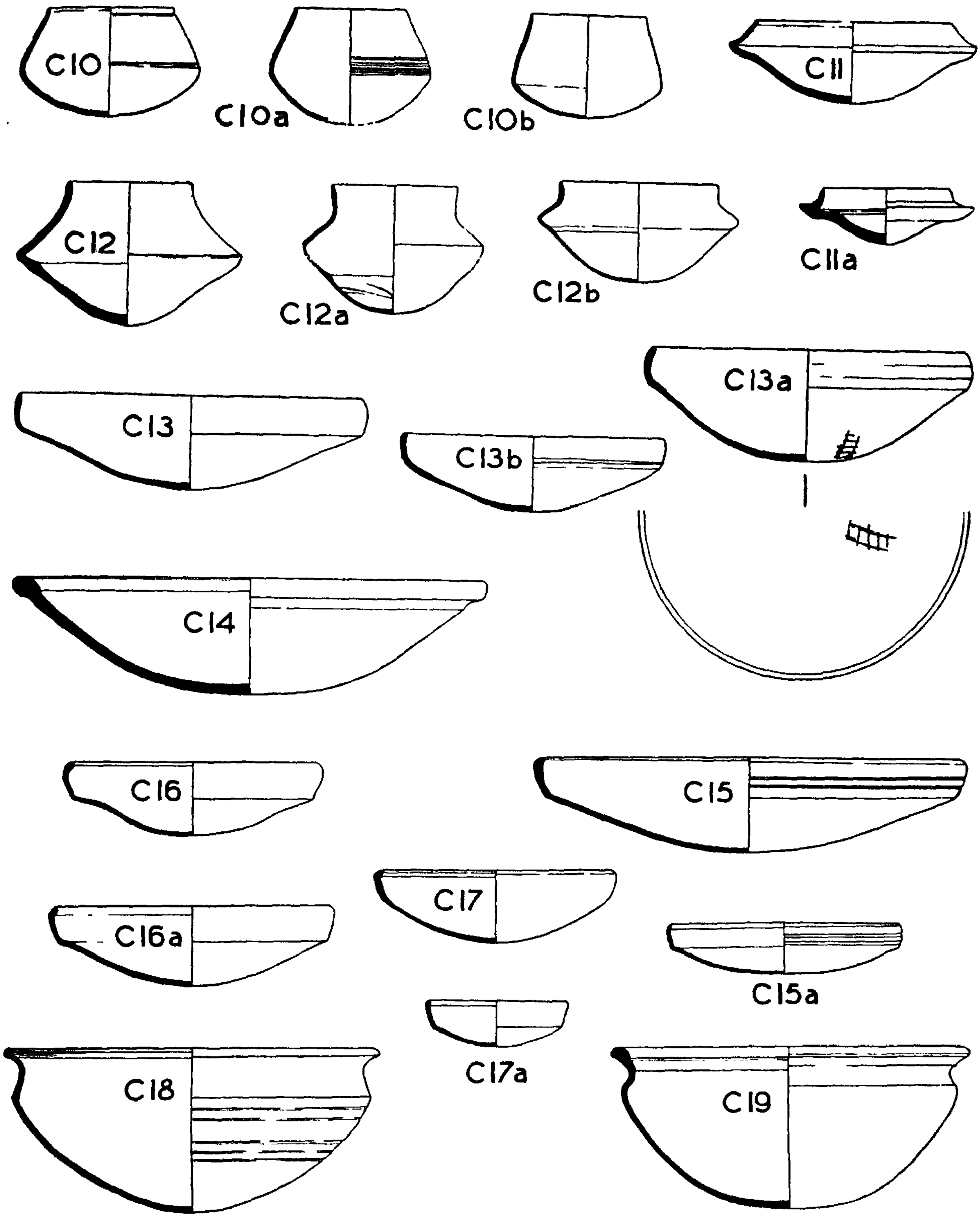


FIG. 10. *Pottery from the Brahmagiri cists.* ¼

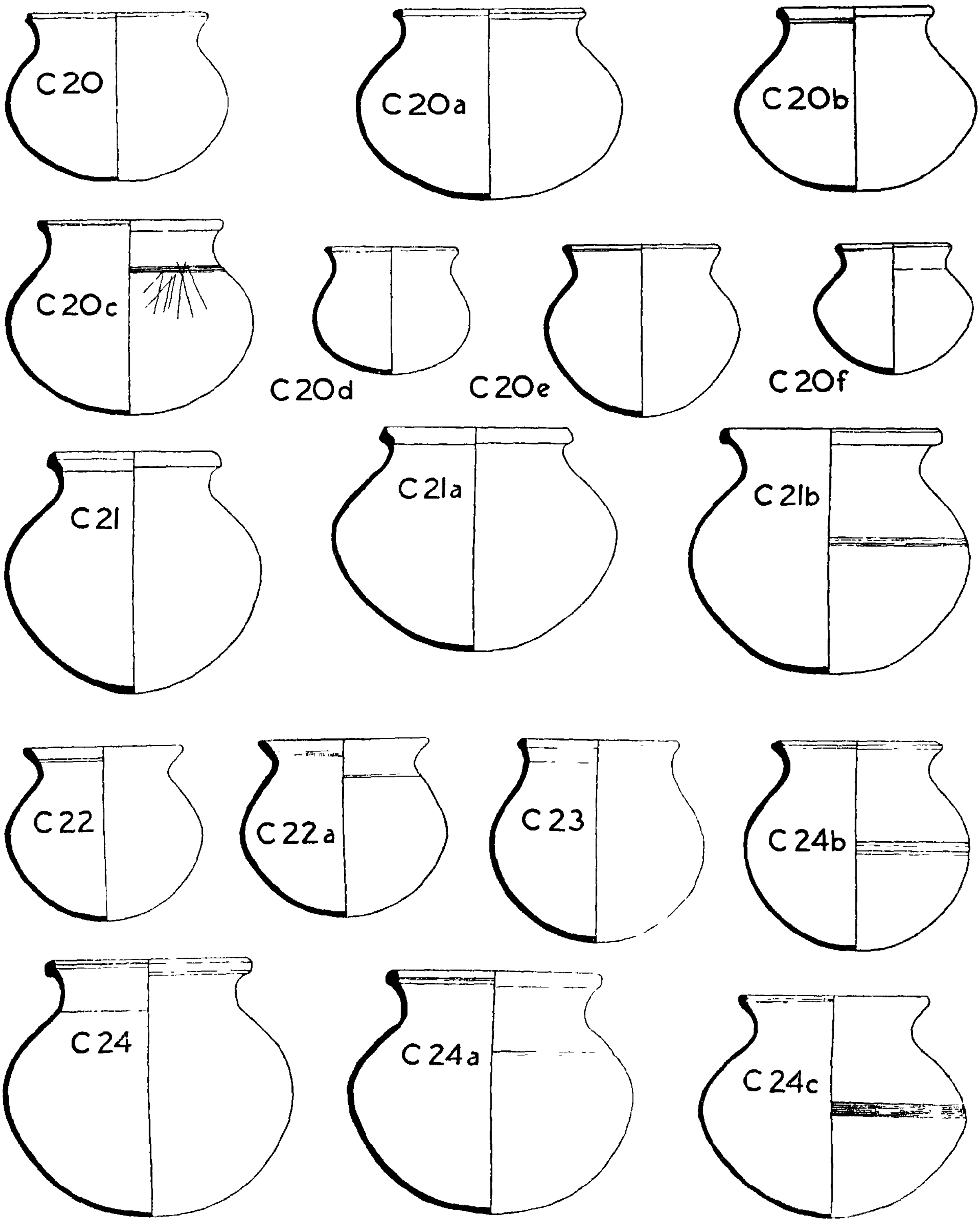


FIG. 11. *Pottery from the Brahmagiri cists.* $\frac{1}{4}$

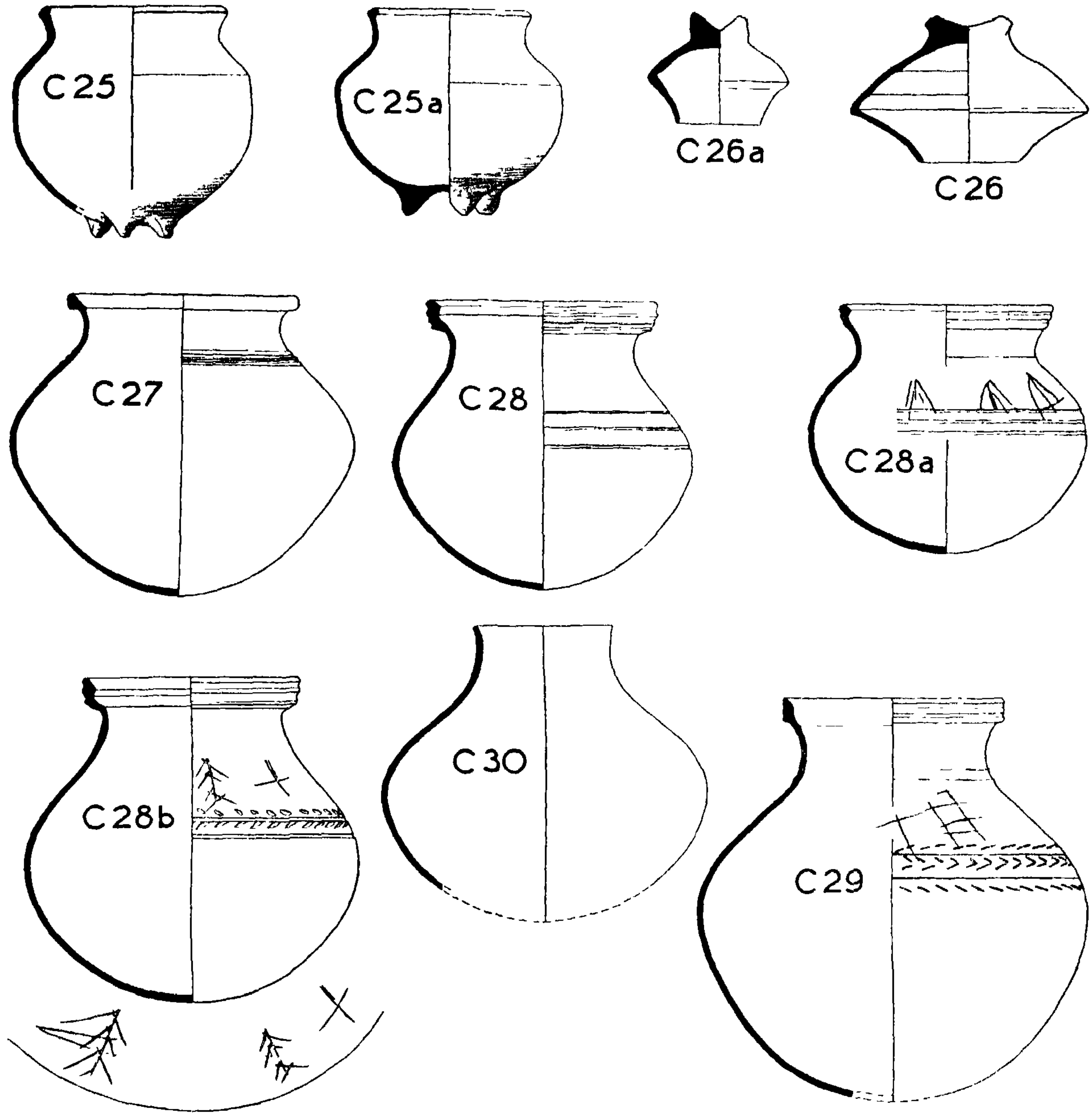


FIG. 12. *Pottery from the Brahmagiri cists.* ¼

Type C13: A dish of black-and-red ware distinguished by a sharpened rim and a sagger base.[1] Variant C13*a*, which has a ladder-like graffito scratched after firing, is of deeper form. Variant C13*b* has a grooved exterior. Though primarily a dish, some vessels of this type may also have been used as lids. Type P13 (p. 218) is an analogous form from the pit-circles. Analogies of the type also occur in the urn-fields near Tinnevelly and Perumbair.[2]

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[1] Cf. *Ancient India*, no. 2 (1946), p. 56.
[2] Rea, op. cit., pl. VI, 1, and pl. X, 16.

Type C14: A thick dish of dull red ware with a heavy rolled rim and a rounded base. Type P14 (p. 216) is an analogous form from the pit-circles. A common type.

Type C15: A dish of black-and-red ware with an incurved rim, grooved sides and a rounded base. Variant C15*a* is a diminutive form of the main type with a thinner section.

Type C16: A dish of black-and-red ware with an incurved rim, pronouncedly concave sides demarcated by a constriction below itself and the rounded base. Variant C16*a* lacks the prominent concavity of the main type. Vessels of this type may also have been used as lids. Analogies of this type are found at Arikamedu.[1]

Type C17: A dish of black-and-red ware with a similar incurved rim and a round base, but lacking the constriction between side and base. Variant C17*a* is a diminutive form of the main type with a slightly concave base.

Type C18: A carinated bowl of black-and-red ware with a knobbed rim and rounded base. It is characterized by multiple external groovings. Analogies of this type occur in the urn-fields at Tinnevelly.[2]

Type C19: A bowl of black-and-red ware with an everted rim, internally grooved, a slightly ledged shoulder and a rounded base. Metal vessels of similar shape are used in India today as flower vases. Type P19 (p. 216) is an analogous type from the pit-circles. A rare type.

Type C20: A common type of globular vase of dull terracotta-red ware with a low neck, an internally beaded and slightly out-turned rim and a round base. Variant C20*a* is marked by a wider bulge. Variant C20*b* is pot-bellied with a thickened rim and a prominent internal groove. Variant C20*c* is a single example with a grooved shoulder. It bears graffiti on the body, executed after firing. Variant C20*d* is a diminutive form of the main type. Variant C20*e* is distinguished by its black-and-red ware, while C20*f* is a smaller variety of this. The black-and-red variants of this type have their analogies in the pit-circles (cf. Type P20).

Type C21: A common type of vase of dull red ware with a slightly everted and beaked rim, a globular body and a rounded base. Variant C21*a* is squattish with a wider bulge. Variant C21*b* has weak external groovings.

Type C22: A rare type of vase of dull red ware with a flaring rim grooved internally, globular body and round base. Variant C22*a* is distinguished by a slight cordon on the shoulder.

Type C23: A globular vase of dull red ware with a beaded rim. A rare type.

Type C24: A common type of vase of dull terracotta-red ware with heavy and internally grooved rim. short neck and globular body with rounded base. Variant C24*a* is slightly squattish with a groove on the body. Variant C24*b* has an everted rim and prominent grooves on the outside. Variant C24*c* has an almost flat rim and thin sides with multiple grooves.

Type C25: A three-ledged vessel of dull red ware with an internally beaded rim, wide shoulders and globular body. Variant C25*a* is squatter in shape and has thicker legs. In the earlier excavations at Brahmagiri Dr. M. H. Krishna collected a number of such three-legged pots.[3] Slightly bigger variants of this type have been recovered from the excavated megaliths at Hulegondi (Chandravalli). Bigger varieties of such three-legged vessels are very common in the urn-fields near Perumbair in the Chingleput District.

Type C26: A unique double-knobbed and sharply carinated lid of dull red ware. It was found covering pot of type C29. Variant C26*a*, also unique, is smaller and has more pointed knobs. Analogies of this type do not appear in any of the published megalithic pottery from South India and the Deccan.

Type C27: A unique vase of dull red ware with a slightly undercut rim, a globular body, grooved shoulder and rounded base.

Type C28: A vase of dull red ware with a heavy multi-grooved rim, a globular grooved body and a rounded base. Variant C28*a* is a unique example with a thinner, less emphatically grooved rim and a slight ledge round the neck. It bears three scratched markings on the body, executed after firing. Variant C28*b*, also unique, has incised bipinnate leaf or herring-bone impression on the body [4] and also bears a graffito executed after firing. Vessels with these multi-grooved rims are rare in the megalithic sites of South India and the Deccan.[5]

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[1] *Ancient India*, no. 2 (1946), p. 55, type 8.

[2] Rea, op. cit., pl. VI, 3.

[3] Presidential Address, Anthropology and Archaeology Section, Indian Science Congress, 1942.

[4] Bands of bipinnate leaf or herring-bone impressions are common decorations on megalithic pottery from South India and the Deccan.

[5] Pots with grooved rims are, however, common in the Megalithic culture levels of the town-site at Brahmagiri (see p. 236).

Type C29: A unique globular vessel of burnished red ware with a grooved rim and a slight groove and cordon round the neck. It is decorated with two rows of incised bipinnate leaf or herring-bone impressions and bears post-firing graffiti. It was found covered with the double-knobbed lid of type C26.

Type C30: A unique pear-shaped vessel of burnished red ware with a high neck, featureless rim and pronounced bulge.

The following is a classification of pottery-types from the pit-circles.

FIGS. 13–16

Type P1: A rare type of elongated vase of black polished ware with carinated shoulder and long tapering body. The pronounced shoulder provided a seating for lids of type P4, which in two cases were found actually in position. Variant P1*a* is distinguished by a cordon on the shoulder. Variant P1*b* also has a cordon, and its rim is more elaborately faceted. Analogies to the general type have been found in a 'barrow' at Anantpur [1] (now in the Madras Museum) and in a port-holed cist at Savandurg, about 22 miles W.S.W. of Bangalore (now in the Bangalore Museum).

Type P2: A funnel-shaped lid of black polished ware with incurved lip, multiple grooves, and solid ring-handle. Funnel-shaped lids with knobbed terminals are common in the megalithic sites of South India and the Deccan but only one other example with the ring-terminal has been noticed (below, p. 274).

Type P3: A rare type of funnel-shaped lid of black polished ware with a beaded rim, multiple grooves and a convex top. Variant P3*a* has a partially everted rim and a pointed top.

Type P4: A funnel-shaped lid of black polished ware with a beaded rim and a flat top. Variant P4*a* has an extremely thin section and graceful profile, while P4*b* differs from the main-type in being more conical. An analogous type comes from a port-holed cist at Chikkajala, 17 miles N.N.E. of Bangalore.[2]

Type P5: A rare type of elongated funnel-shaped lid of black-and-red ware with sides sharply incurved near the lip and a flat top. Only two such examples, one fitted within the other, were found, in Megalith IX.

Type P6: A squattish conical bowl or lid of black polished ware with a slightly beaded lip, a ledged shoulder, and a pointed base. Variant P6*a*, smaller than the main type, has a more pronouncedly beaded rim and a sharply pointed base. Analogous types in black-and-red ware come from the Ādichanallur urn-field, Tinnevelly.[3] Type P7 is a variant of a similar type in red ware.

Type P7: A rare type of vessel of dull red ware, found in use as a lid, with a flat rim, an oval mouth, and a sharply carinated and grooved waist tapering down to a pointed base. Variant P7*a* is squat in shape and has a flanged rim. Type P6 is similar but is of black ware. Analogous types in black-and-red ware come from the Ādichanallur urn-field.[4]

Type P8: A small carinated bowl of black polished ware with an everted and sharpened rim and a rounded base. It is distinguished by a groove round the neck and a flattened band round the body. An analogous type comes from the urn-field near Perumbair, Chingleput Dist.[5]

Type P9: A unique bowl of black polished ware with straight sides above a central carination, a thin sharpened rim, and round base.

Type P10: A rare type of bowl of black polished ware with a slightly undercut rim, carinated shoulder and sides tapering to a blunt base. Variant P10*a* has a thick everted rim and has a less pronounced carination than the main type.

Type P11: A shallow tulip-shaped vase with a flared and everted rim, a ledge round the body and a rounded base. It is invariably grooved on the inside. This type is found in both black and black-and-red wares. Variant P11*a*, of black ware, agrees generally with the principal type but has a slightly flattened base. Variant P11*b* is wider and has a more flaring and thickened rim, while variant P11*c* has an externally beaked rim and a pronounced internal depression corresponding to the external ledge. Variant P11*d* has an externally grooved rim. The occurrence of this general type in definite stratified levels of the habitation areas at Brahmagiri provides an important link between them and the megaliths. The type is fairly common at Brahmagiri but analogies elsewhere have not been noticed.

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[1] Bruce Foote, *Catalogue of Prehistoric Antiquities*, pl. XXXIII, 1231.

[2] Ibid., pl. XXVI, 1286.

[3] A. Rea, *Catalogue of Prehistoric Antiquities*, pl. VI, 28.

[4] Ibid.

[5] Ibid., pl. X, fig. 15.

Type P12: A rare type of short, wide-mouthed pedestalled vessel of black polished ware, characterized by a globular cup with an externally grooved rim and a hollow stem. Analogies to this type come from the Ādichanallur (Tinnevelly) urn-field,[1] and from Vellalur in the Coimbatore Dist.[2] The use of these vessels is not known; they may have been cups or incense-burners, or even a ring-stand to hold round-bottomed vessels.[3]

Type P13: A shallow dish of black-and-red ware distinguished by a sharpened vertical rim, bluntly carinated sides and a rounded base. Variant P13*a* replaces the carination with a groove. Though primarily used as dishes, vessels of this shape may also have been used as lids. The type is a common one and is analogous to Type C13 from the cists.

Type P14: A shallow dish of red ware with a thick gritty core, clubbed rim, and rounded base. It has a slightly corrugated interior. Variants P14*a* and *b* are shallower, differ slightly in the shape of the rims, and lack the inner corrugations. Type C14 is an analogous type from the cists. A common type.

Type P15: A vase of red ware with a heavy, internally grooved rim and a globular body. Variant P15*a* (one example) is similar in essential features except for the rim which is everted and wedge-shaped. It bears a graffito, executed after firing.

Type P16: A rare type of bowl of black polished ware with a horizontal rim, a broad spout, and a rounded profile. Possibly a milk-bowl. A similar vessel in the Madras Museum was found at Patpad, Banganapalle State, south of Kurnool.[4]

Type P17: A unique pot-bellied vase with a thin haematite slip on the exterior. It has an everted rim, internally beaked, and a pointed base. As, with the possible exception of P12, no ring-stands were found in the Brahmagiri megaliths, it is presumed that such pointed vessels were fixed to the ground.[5]

Type P18: A globular jar of dull red ware with a flanged and grooved rim and a round base. The shoulder is grooved. Variant P18*a* has a flatter rim with internal beak and external groove. The only example of this variant has a post-firing graffito on the body. Variant P18*b* has an externally beaded and internally beaked rim. The only example has three oblique lines on the outside, incised after firing. The general type, supported on ring-stands, is represented in the Ādichanallur urn-field.[6]

Type P19: A rare type of carinated bowl of black-and-red ware with a heavy everted rim and a rounded base. Variant P19*a* has a more sharpened rim and profile. Type C19 is an analogous type from the cists.

Type P20: A vase of black-and-red ware with a flaring rim, a globular body, and a rounded base. There are a slight ledge at the shoulder and a girth-groove. P20*a* and *b* are unique variants and bear post-firing graffiti; P20*a* has a slightly flattened base, and P20*b* has a more emphatic rim. Variant P20*c* is a coarser example with thicker walls. Variant P20*d* has a beaded rim and multiple grooves on the body. Type C20 is an analogous type from the cists. A common type.

Type P21: A large round-bottomed jar with a flanged rim bearing multiple grooves with incised herring-bone pattern. On the body are two bands of incised zigzag pattern between grooves. Variant P21*a* is a unique example with cord impressions on the rim, concentric grooves and slashes on the shoulder and bipinnate leaf incisions between grooves on the body. The type is common at Brahmagiri, but analogies elsewhere have not been noticed.

The grouping of the pottery-types in the Brahmagiri cists and pit-circles

The types described above were grouped as follows in the cists and pit-circles excavated in 1947. The figure in brackets after each type-symbol indicates the number of examples in the group.

MEGALITH I (cist) .. C1*a*(1), C1*d*(2), C3(2), C3*e*(5), C4(1), C5(1), C6(1), C7*c*(1), C10*a*(2), C10*b*(1), C20*c*(1), C24(1), C25*a*(1).

MEGALITH II (pit) .. P1(1), P1*a*(1), P2(1), P3(1), P3*a*(1), P4(2), P4*a*(1), P6(1), P14(2), P14*a*(1), P15(2), P18(2), P20*d*(1).

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[1] Rea, op. cit., pl. VIII, nos. 3 and 22.

[2] Bruce Foote, op. cit., pl. XXIV, no. 1093.

[3] Rea, op. cit., pl. VI, 15.

[4] Bruce Foote, *Indian Prehistoric and Protohistoric Antiquities*, pl. 26.

[5] Vessels with pointed bases are common in the urn-fields of Tinnevelly District, where they were supported by ring-stands.

[6] Rea, op. cit., pl. VIII, 7.

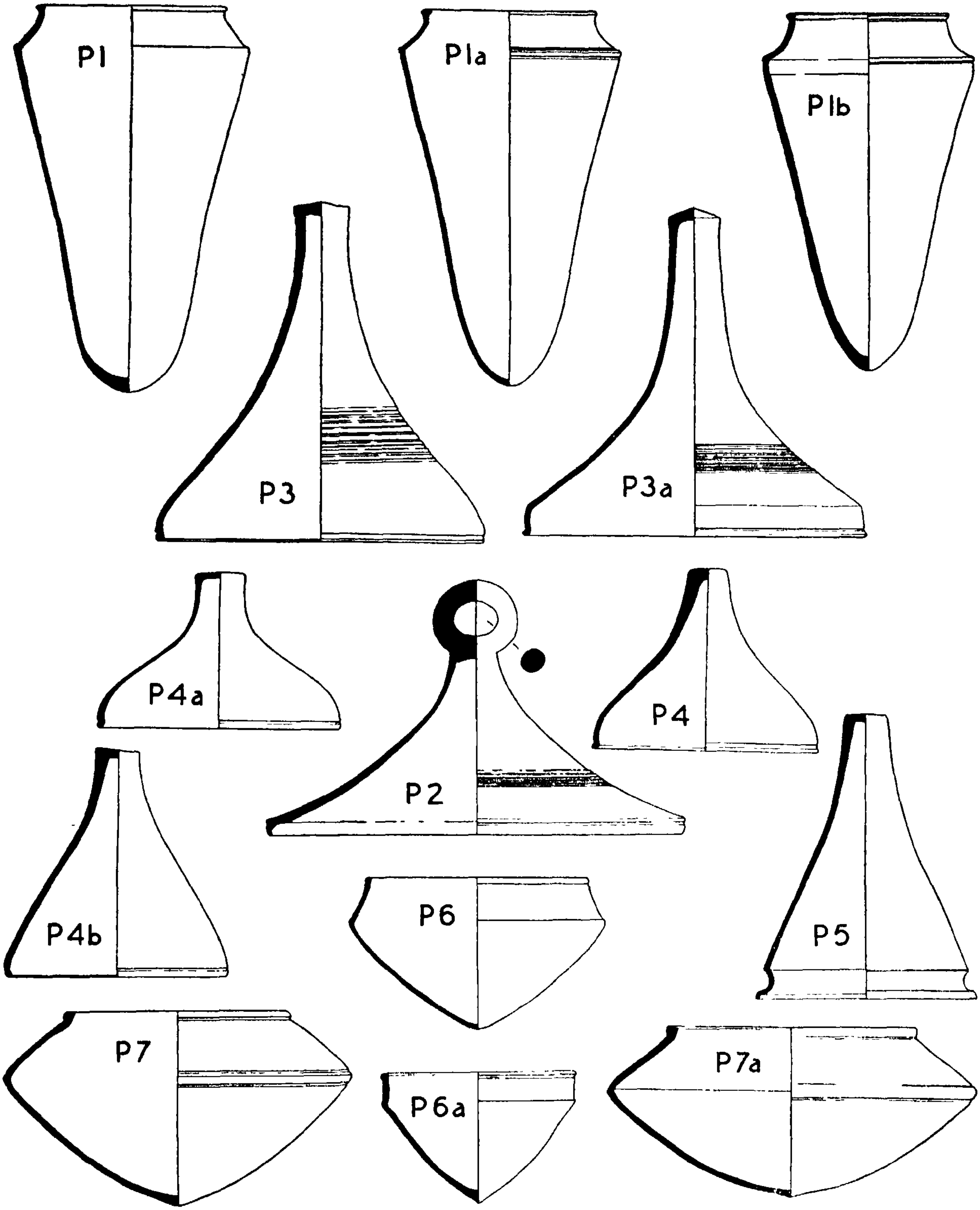


FIG. 13. *Pottery from the Brahmagiri pit-circles.* ¼

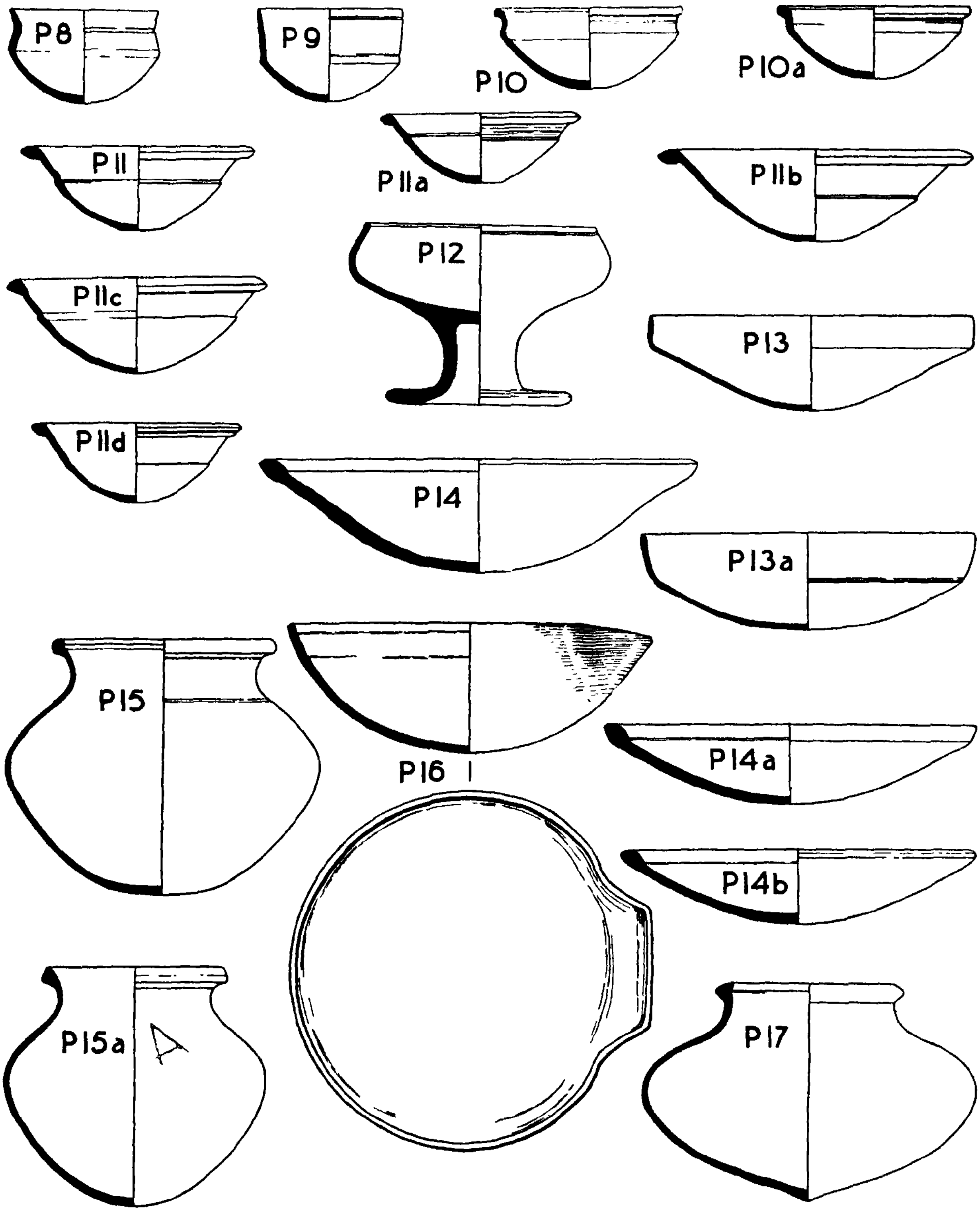


FIG. 14. *Pottery from the Brahmagiri pit-circles.* ¼

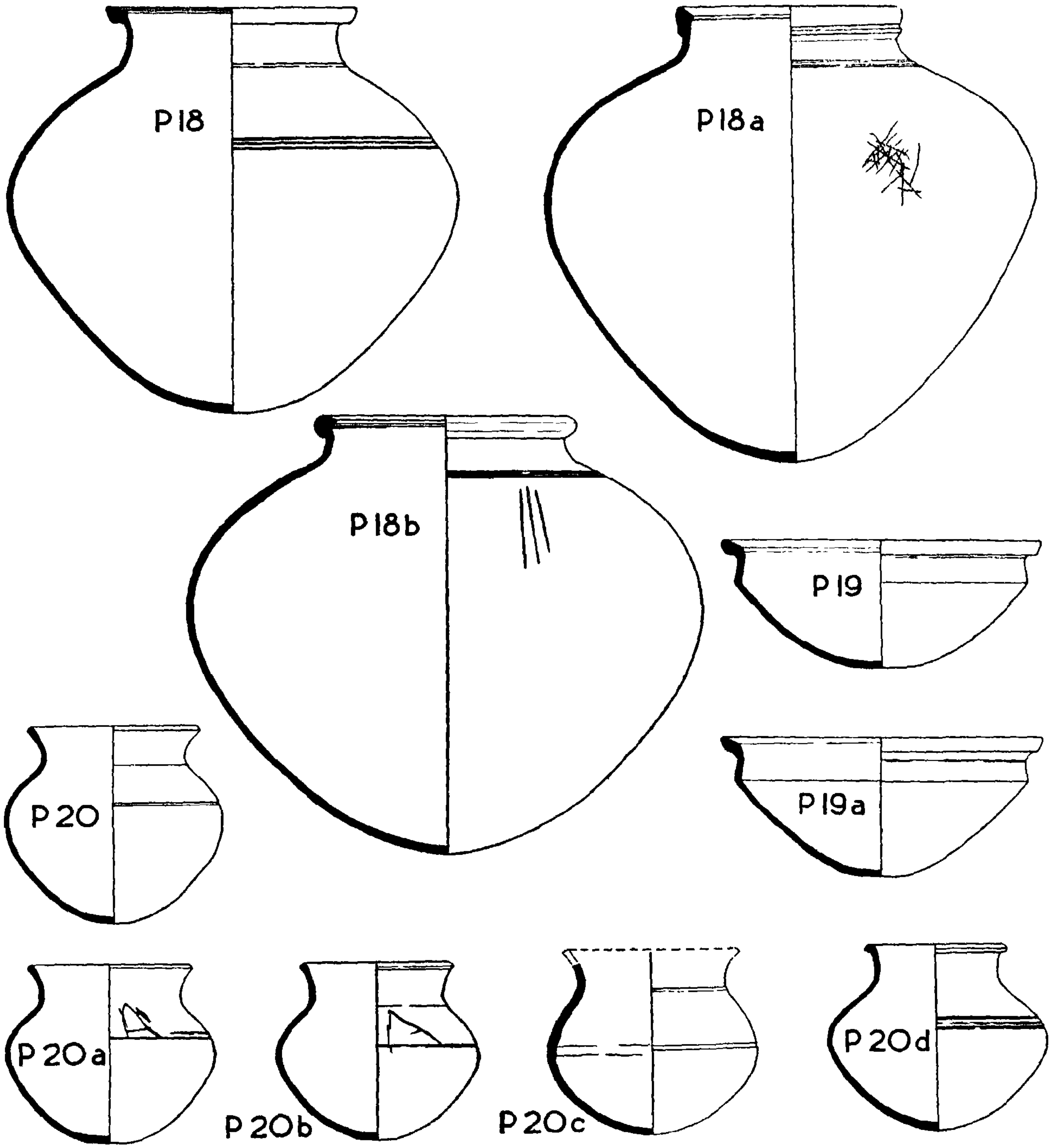


FIG. 15. *Pottery from the Brahmagiri pit-circles.* ¼

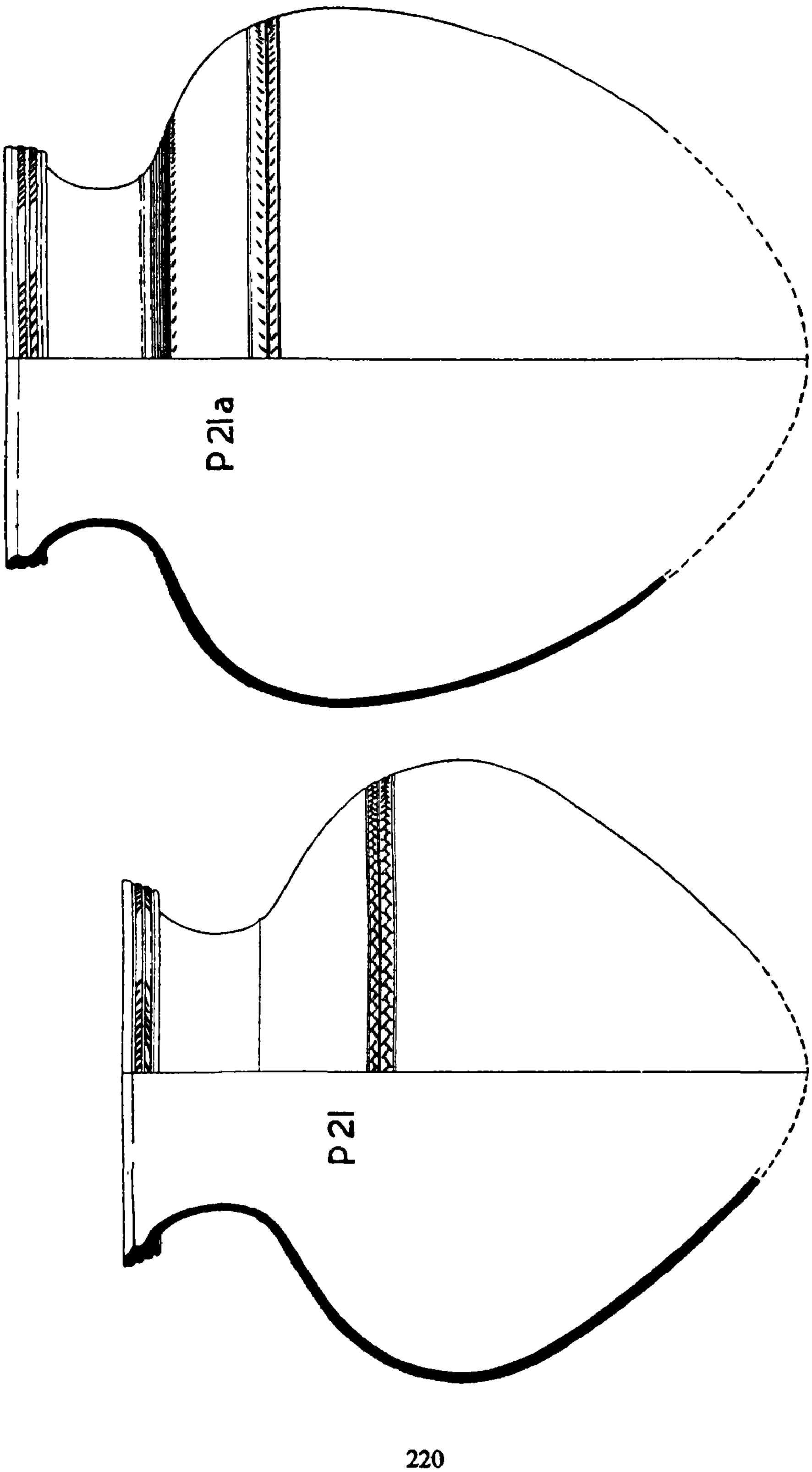


FIG. 16. *Pottery from the Brahmagiri pit-circles.* ¼

MEGALITH IV (cist) ..	C3(5), C3*a*(2), C3*c*(1), C5(2), C7(2), C7*d*(1), C8(2), C8*b*(1), C9(1), C10(2), C12(3), C12*a*(2), C14(1), C18(3), C19(1), C20(1), C22(1), C24(8), C24*a*(2), C24*b*(2), C26*a*(1), C28(4), C28*b*(1), C30(1).
MEGALITH V (cist) ..	C1(1), C2(1), C3(1), C16(1), C19(1), C24*b*(1).
MEGALITH VI (cist) ..	C8*a*(1), C11(1), C14(2), C19(1), C20*a*(1), C21(2), C21*a*(1), C24(2).
MEGALITH VII (pit) ..	P1(1), P3(2), P4(3), P4*b*(1), P6(3), P6*a*(1), P8(2), P9(1), P10(3), P10*a*(1), P11*a*(2), P11*c*(1), P12(2), P13(2), P13*a*(1), P14(1), P16(1), P17(1), P18(1), P19(3), P20*c*(1), P20*e*(1), P21(1).
MEGALITH VIII (cist) ..	C7*a*(1), C13(2), C13*a*(1), C14(1), C20*b*(1), C21*b*(1), C24(3), C26(1), C27(1), C29(1).
MEGALITH IX (pit) ..	P1(1), P4(1), P5(2), P6(2), P7(1), P7*a*(1), P11(6), P11*b*(1), P11*d*(1), P14*b*(1), P15*a*(1), P16(1), P18*a*(1), P18*b*(1), P19(1), P20(2), P20*a*(1), P20*b*(1), P21(3), P21*a*(1).
MEGALITH X (cist) ..	C1(4), C1*a*(1), C1*d*(1), C3(3), C3*a*(1), C3*b*(1), C5(3), C5*a*(2), C7*b*(1), C10(1), C10*b*(1), C11(1), C11*a*(1), C12*a*(1), C12*b*(1), C13*b*(1), C15(2), C15*a*(1), C16(2), C16*a*(1), C17(2), C20(4), C20*d*(1), C20*e*(1), C22(1), C22*a*(1), C23(2), C24(3), C24*c*(1), C25(3), C28*a*(1).
MEGALITH XA (small cist)	C1*b*(1), C1*c*(1), C20*f*(1).
MEGALITH XB (small cist)	C6*a*(1).
MEGALITH XC (small cist)	C1*c*(1), C2(1), C17*a*(1).

(*f*) *Other Megalith pottery from the cemetery area* (fig. 17)

Two groups of pottery of 'megalithic' fabric were found in deposits preceding the construction of two of the megalithic cists.

Group A. Three pots (fig. 17, 1–3) occurred together in an accumulation which overlay a floor partially covered with stone slabs and underlay the surface-soil existing at the time of the construction of cist V. They are presumably therefore of appreciably earlier date (see section, pl. LXXXVIII). Nevertheless, no. 1, though not represented in cist V, is a familiar megalithic type and occurs in cists VIII and X and pit-circle VII (Types C13 and P13; above, pp. 213 and 216). No. 2 is a new type, without parallels either in the cists or in the pit-circles. No. 3 is similar to Types C19 and P19 (above, pp. 214 and 216); it actually occurs in the overlying cist V, and is also present in cists IV and VI and pit-circles VII and IX.

1. Dish of black-and-red ware with internally beaded rim and slightly concave base.
2. Globular bowl of black-and-red ware with thin sharpened rim, short neck and round base.
3. Carinated vase of black-and-red ware with flared mouth, beaded rim and rounded base.

Group B. Eleven pots (fig. 17, 4–13) were found in a pit partially floored with slabs beside and prior to cist VI (see section, pl. LXXXIX) in a layer precisely equivalent to that containing Group A. Nos. 4 and 5 have analogies in cist VI itself and resemble Group A, no. 3. Nos. 6–13 are absent from the cists and pit-circles, but nos. 6, 7 and 8 and one broken pot of the same type (not illustrated) resemble Group A, no. 2. The large painted jar, no. 12, is the only vessel from the Megalithic culture which is in any way comparable with the painted pottery of the Brahmagiri Stone Axe culture IA, but differs from the latter in being wheel-turned.

4. Carinated vase of black-and-red ware with slightly undercut rim and rounded base.
5. Bluntly carinated vase of black-and-red ware with beaded rim and rounded base.
6. Globular bowl of black-and-red ware with thin sharpened rim, grooved neck and rounded base.
7. Bluntly carinated globular bowl of black-and-red ware with thin sharpened rim and rounded base.
8. Bluntly carinated globular bowl of black-and-red ware with thin sharpened rim, weakly grooved neck, and rounded base.

9. Deep bluntly carinated bowl of black-and-red ware with beaded rim and rounded base.
10. Bottle-necked vessel of dull red ware with beaded rim, globular body and thick round base.
11. Conical bowl of black-and-red ware with externally grooved rim and rounded base. Analogies occur in the urn-fields near Tinnevelly.[1]
12. Large painted jar with externally beaked rim, short neck, globular body and rounded base. The painted decoration in dark ochre, applied after firing on a dull red slip, consists of horizontal bands and multiple horizontal crescents.
13. Neck-fragment of a large jar of dull red ware with flaring rim and globular body.

(g) *Pottery from the town-site*

As indicated above (p. 199), the occupation of the town-site falls into three main phases, with a subdivision of the earliest.

IA. } Brahmagiri Stone Axe culture.
IB. }
II. Megalithic culture.
III. Āndhra culture.

The pottery illustrated from the town-site is prefixed with the index-letter T.

Pottery of the Brahmagiri Stone Axe culture

In contradistinction to the wheel-made pottery of the later cultures, all the pottery of the Brahmagiri Stone Axe culture is hand-made. Throughout both subdivisions of this culture, the predominant ware is of a coarse grey fabric, sometimes with a thin slip of the same clay. Most of it is crudely made, but a proportion of the sherds shows polish, particularly in the higher levels. A dominant type throughout is that of a round-bottomed vessel with plain, slightly everted rim. It is evident that the subdivisions are variations of an essentially integral culture, of which the earlier phase is somewhat more elaborate than the later.

Sub-phase IA. Evidence of this subdivision occurred at the base of the cuttings Br. 17, 21, 22 and 23, and, as noted above, there was stratigraphical evidence of an interruption in the occupation of Br. 21 at the end of the sub-phase. Alongside sherds of coarse grey pots similar to those characteristic of sub-phase IB, were two classes of pottery which are absent from the latter: namely, painted pottery and incised pottery. The sherds found in the limited area exposed were too fragmentary to indicate the shapes employed in these two classes.

The painted sherds have alternatively a red or a buff slip. Those with a red slip are burnished and, according to the Archaeological Chemist, seem to have been salt-glazed. Those with a buff slip are neither burnished nor glazed. The two categories occur together. The painted decoration is applied after firing; the pigment is ochre[2] with a predominantly brownish purple colour. The sherds are too small to indicate the range of pattern, but this appears to have been of a simple character, including curved lines possibly representing in some cases a summary and highly conventionalized plant-pattern (see pl. CVII and fig. 18).[3]

The incised sherds represent elementary herring-bone or criss-cross patterns.

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[1] Rea, op. cit., pl. VI, 27, and pl. VIII, 5.

[2] Chemist's notes.

[3] The published assertion that this painted pottery is 'remarkably similar to some Indus Valley pottery' is without any sort of foundation. There is no resemblance whatsoever, technically or artistically, between the Brahmagiri and the Indus Valley ceramics.

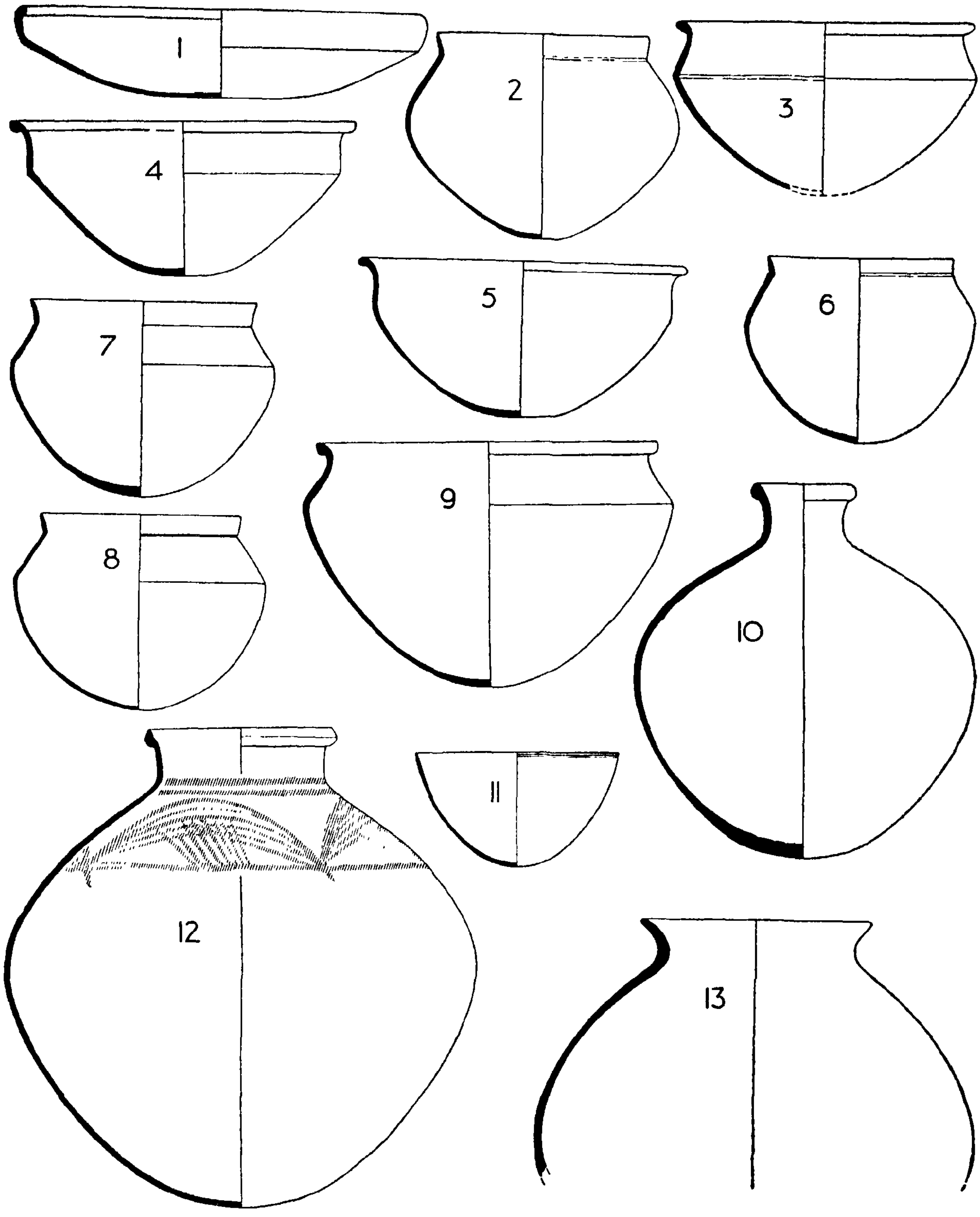


FIG. 17. *Other Megalith pottery from the cemetery area.* $\frac{1}{4}$

Figs. 18-19

T1. Red-slipped burnished and salt-glazed sherd with curvilinear decoration in a dark ocherous pigment. (See also pl. CVII, 5.)
T2. Red-slipped burnished and salt glazed sherd with two dark ocherous bands.
T3. Buff-slipped sherd with conventionalized plant-pattern in dark ochre. (See also pl. CVII, 6.)
T4. Buff-slipped sherd with cordon painted in chocolate colour; incisions, above and below. (See also pl. CVII, 12.)
T5. Buff-slipped cordoned sherd with black oblique lines.
T6. Buff-slipped sherd with curvilinear decoration in dark ochre. (See also pl. CVII, 9.)
T7. Red-slipped burnished and salt-glazed sherd with dark ocherous bands.
T8. Red-slipped burnished and salt-glazed sherd with criss-cross bands in dark ochre. (See also pl. CVII, 7.)
T9. Red-slipped burnished and salt-glazed sherd with bands in dark ochre.
T10. Pinkish buff-slipped sherd with bands in dark ochre. (See also pl. CVII, 2.)
T11. Buff-slipped sherd painted with conventionalized plant-pattern in dark ochre. (See also pl. CVII, 10.)
T12. Buff-slipped sherd with horizontal chocolate bands. (See also pl. CVII, 3.)
T13. Buff-slipped sherd with brown bands. (See also pl. CVII, 8.)
T14. Buff-slipped sherd with dark ocherous bands. (See also pl. CVII, 1.)
T15. Grey-slipped sherd with horizontal brownish purple bands. (See also pl. CVII, 4.)
T16. Red-slipped burnished and salt-glazed sherd with a dark ocherous band.
T17. Red-slipped burnished and salt-glazed sherd with dark ocherous bands.
T18. Cordoned sherd with light brown slip.
T19. Grey-slipped sherd with incised criss-cross pattern. (See also pl. CVII, 11.)
T20. Grey-slipped sherd with irregular incisions.
T21. Buff-slipped sherd with irregular incisions.
T22. Grey-slipped incised sherd. (See also pl. CVII, 13.)
T23. Grey-slipped incised sherd. (See also pl. CVII, 14.)
T24. Buff-slipped sherd with incised herring-bone pattern. (See also pl. CVII, 15.)
T25. Rim-fragment of a jar of dull grey ware with a splayed mouth. Vessels of this shape, used as urn-burials, are a dominant type throughout both the phases of the Brahmagiri Stone Axe culture.
T26. Rim-fragment of a jar of dull grey ware with a flared mouth.
T27. Rim-fragment of a vase of dull grey ware with flaring mouth.
T28. Rim-fragment of a vase of greyish-black ware with flaring mouth.
T29. Rim-fragment of a vase of dull grey ware.
T30. Rim-fragment of a vase of red ware, slightly burnished with a flaring mouth.
T31. Fragment of a large rimless bowl of grey ware with a light brown slip.
T32. Rim-fragment of a bowl of grey ware with an external groove just below the mouth.
T33. Rim-fragment of a shallow basin of grey ware with a chalky slip.
T34. Spouted vessel of coarse ware with a thin terracotta-red slip. Spouts are a familiar feature throughout the 'IB' phase of the Brahmagiri Stone Axe culture.
T35. Neck-fragment of a bottle-necked vessel of red ware with a slightly beaded rim. (It may on the other hand have been a large funnel-spout).

Sub-phase IB. A majority of the sherds from the occupation-débris of this sub-phase represent pots similar in shape and fabric to the seventeen burial-urns recovered from the same strata. An eighteenth burial-urn of similar type was found in a grave-pit cut into the earliest stratum of the Megalith culture on site Br. 22A, and confirms the overlap of the two cultures.

These burial-urns are hand-made, generally dull mottled grey in colour, coarse and micaceous in texture, and in most cases indifferently baked. In only one instance is the surface polished. They have a globular body with a wide mouth, flared rim and rounded base, and on an average measure 13 inches in height and 12 inches in diameter at the mouth.

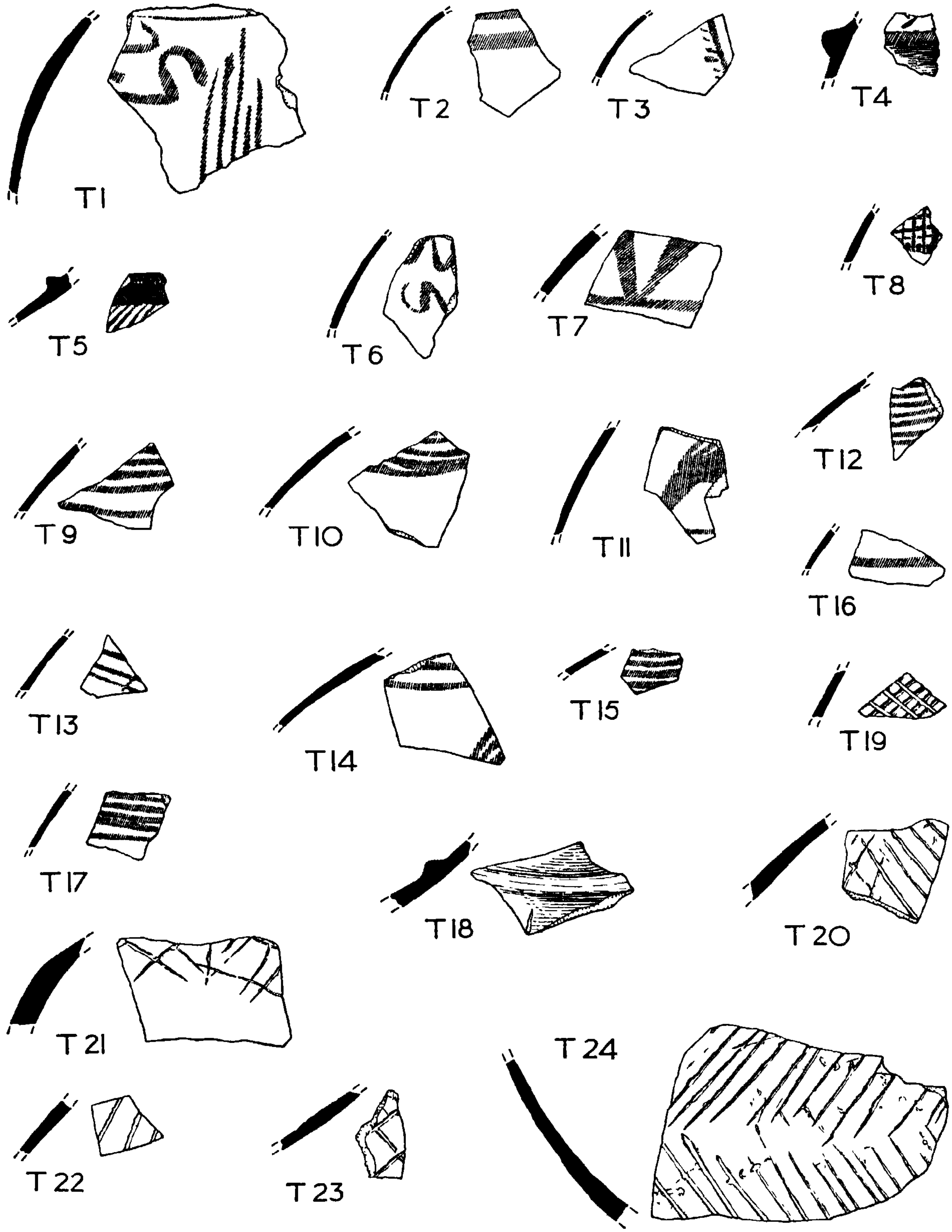


FIG. 18. *Pottery of the Brahmagiri Stone Axe culture IA.* $\frac{1}{3}$

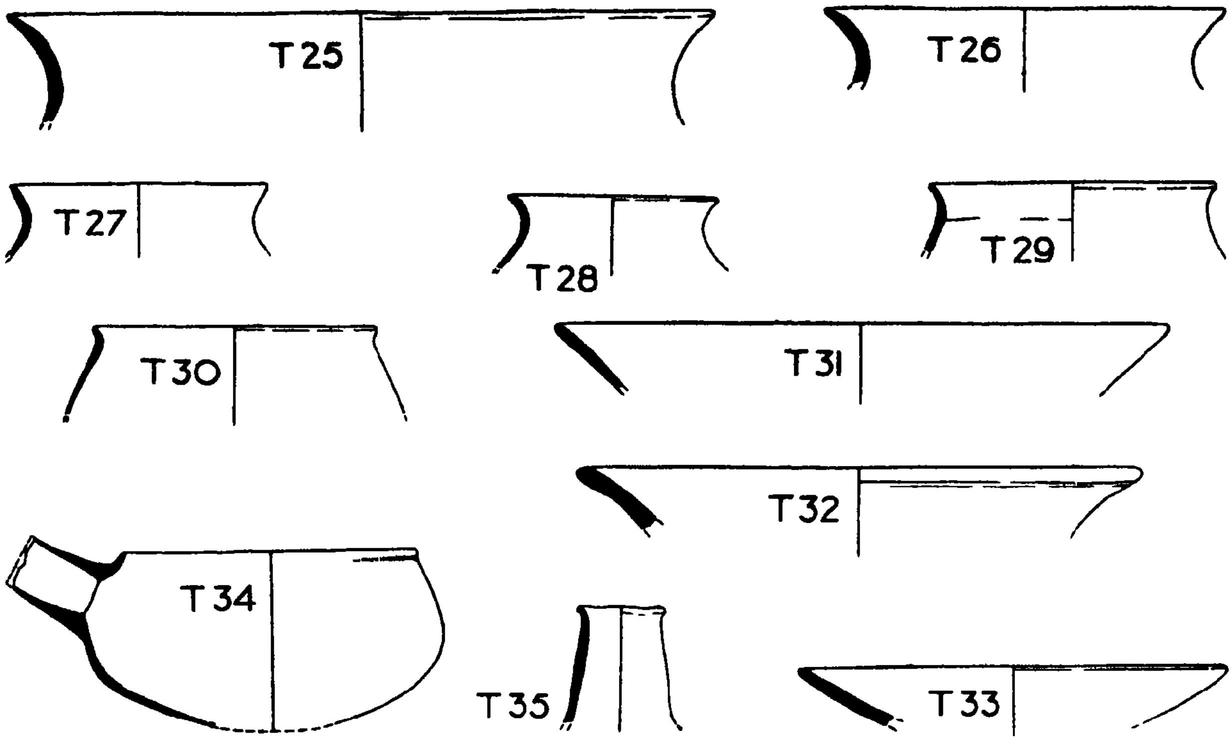


FIG. 19. *Pottery of the Brahmagiri Stone Axe culture IA.* ¼

The pits in which these urns were inserted were usually no more than sufficient to accommodate them. The skeletal remains contained by the urns were invariably those of small children, whose bodies had been tightly folded to fit into the restricted space. In a few cases, where disturbance and advanced decay had taken place, it was not possible to affirm that the body had been buried intact, but the evidence is not clear enough to establish deliberate fragmentation-burial, such as occurred in the megalithic cists. Only one urn contained an accompanying object, but this was of exceptional importance in that it consisted of a small rod (pin ?) of bronze (fig. 41, 1), one of the only two occurrences of this alloy in the Stone Axe culture. The urns were usually covered either with a bowl placed upright or inverted, or with the lower half of a broken urn.

Figs. 20-21

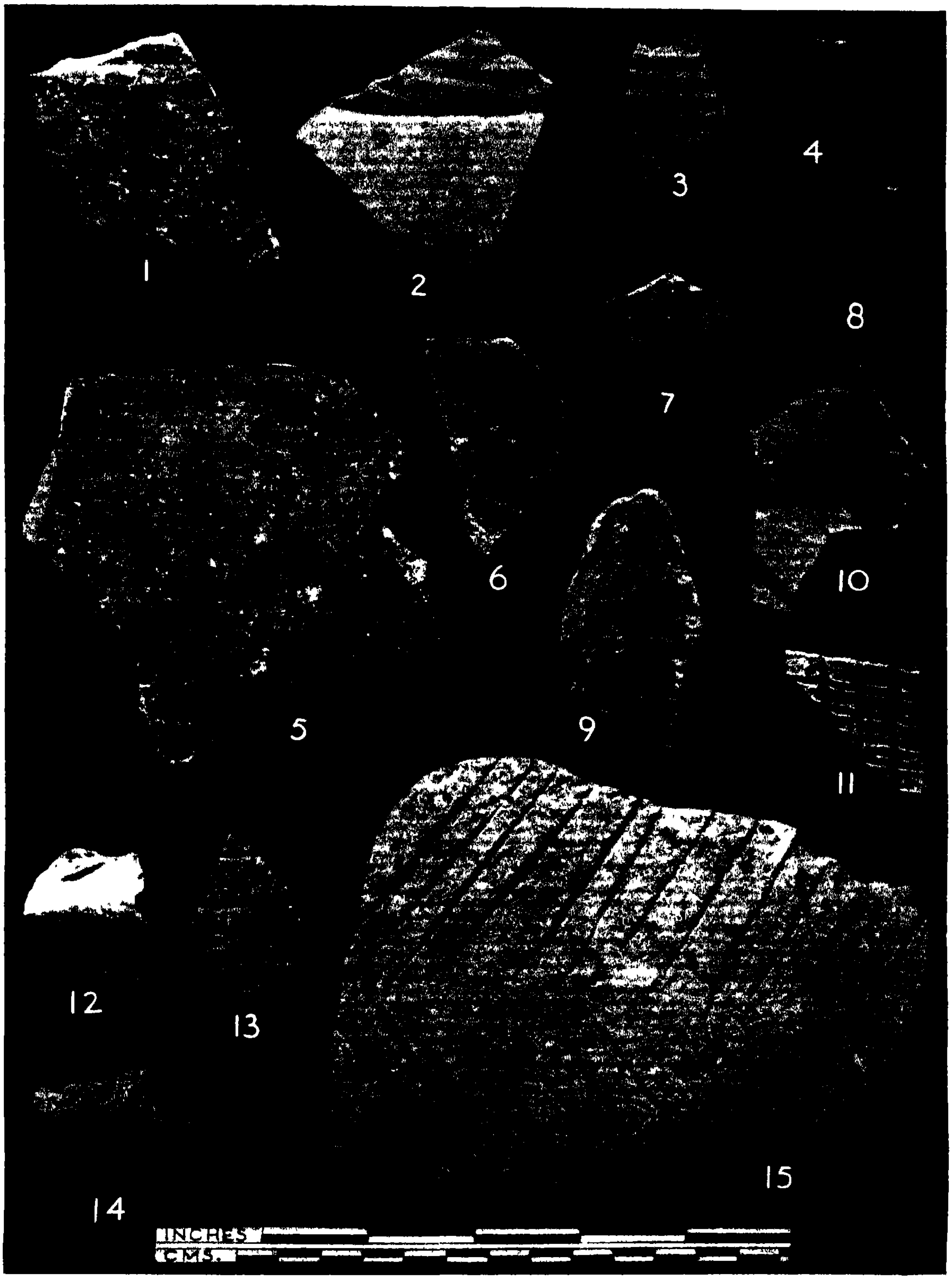
Eight of the burial-urns are here illustrated (T36–43) to represent the range of the type.

T36. Burial-urn from the lower part of sub-phase IB in cutting Br. 21 (layer 15 in section, fig. 8). The urn contained two small pots (T36*a*-*b*) of similar fabric, together with the decayed skeleton of an infant. Under the bones, within the urn, was a featureless bronze rod 3 inches long (probably a pin, which may have been used to fasten a wrapping—see p. 267).

T37. Burial-urn from the lower part of sub-phase IB in cutting Br. 21 (layer 15). It has a slightly more widely flared mouth than T36. The skeletal remains consisted of the broken skull, some ribs and a few long bones of an infant.

T38. Burial-urn of squat shape from the lower part of sub-phase IB in cutting Br. 16B. It contained the complete skeleton of an infant (pl. CIX A).

T39. Burial-urn from a middle stratum of sub-phase IB in cutting Br. 16B. It contained the decayed skeleton of an infant.



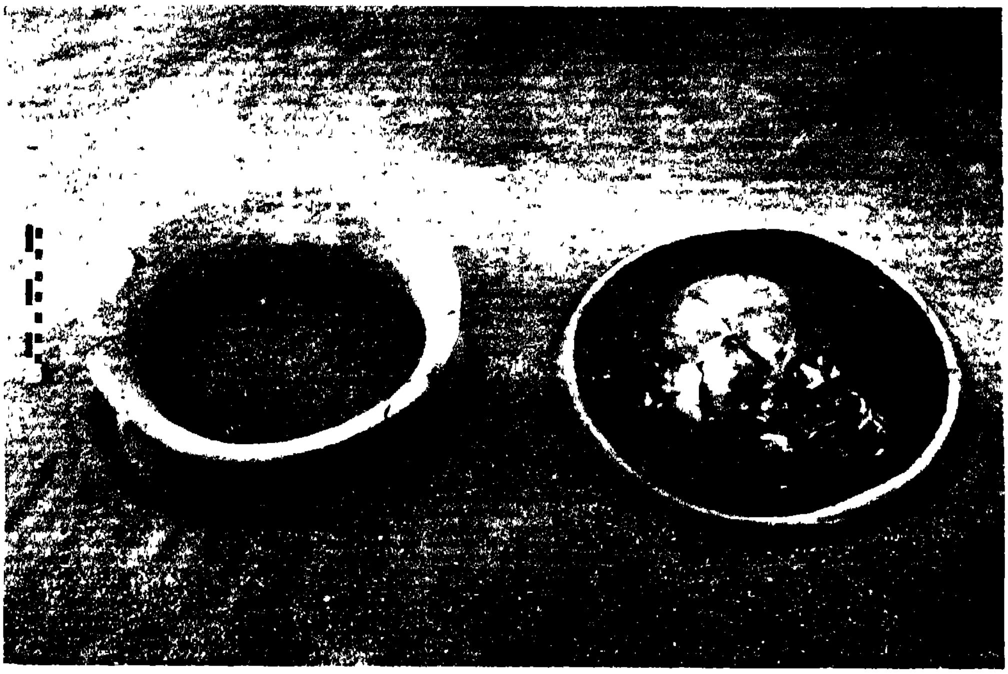
Brahmagiri: painted and incised pottery of the 'Stone Axe' culture 1A



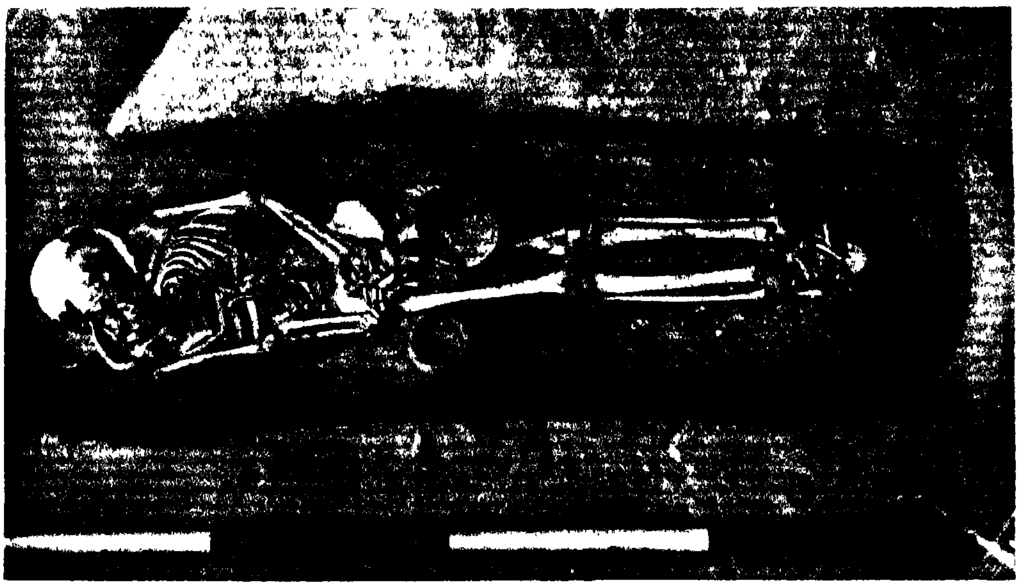
A. *Brahmagiri: urn-burials T 38 and T 39. 'Stone Axe' culture*



B. *Brahmagiri: urn-burial T 43, 'Stone Axe' culture but actually deposited in a stratum of the 'Megalith' culture.* (Scale of inches.)

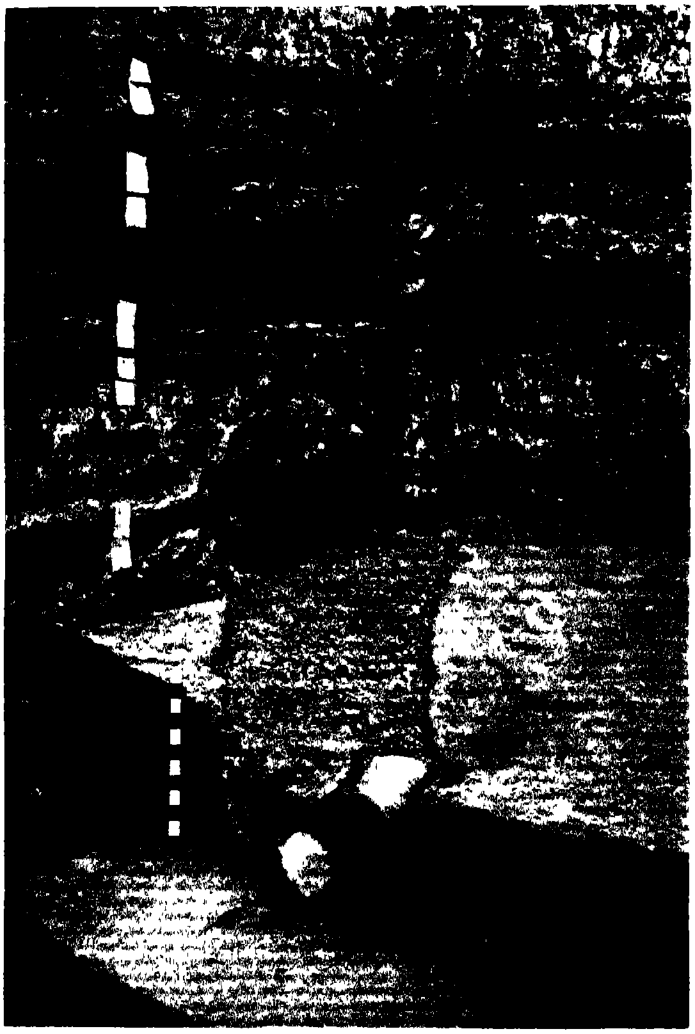


A. *Brahmagiri: urn-burial no. T38, 'Stone Axe' culture. (Urn sawn into halves for the extraction of the bones.)*



B. *Burial on site Br. 17, 'Stone Axe' culture. (A spouted pot has been removed from the head of the skeleton. See pl. CX.)*

To face page 227



Brahmagiri: grave with spouted vessel at the head: 'Stone Axe' culture (cf. pl. CIX B)

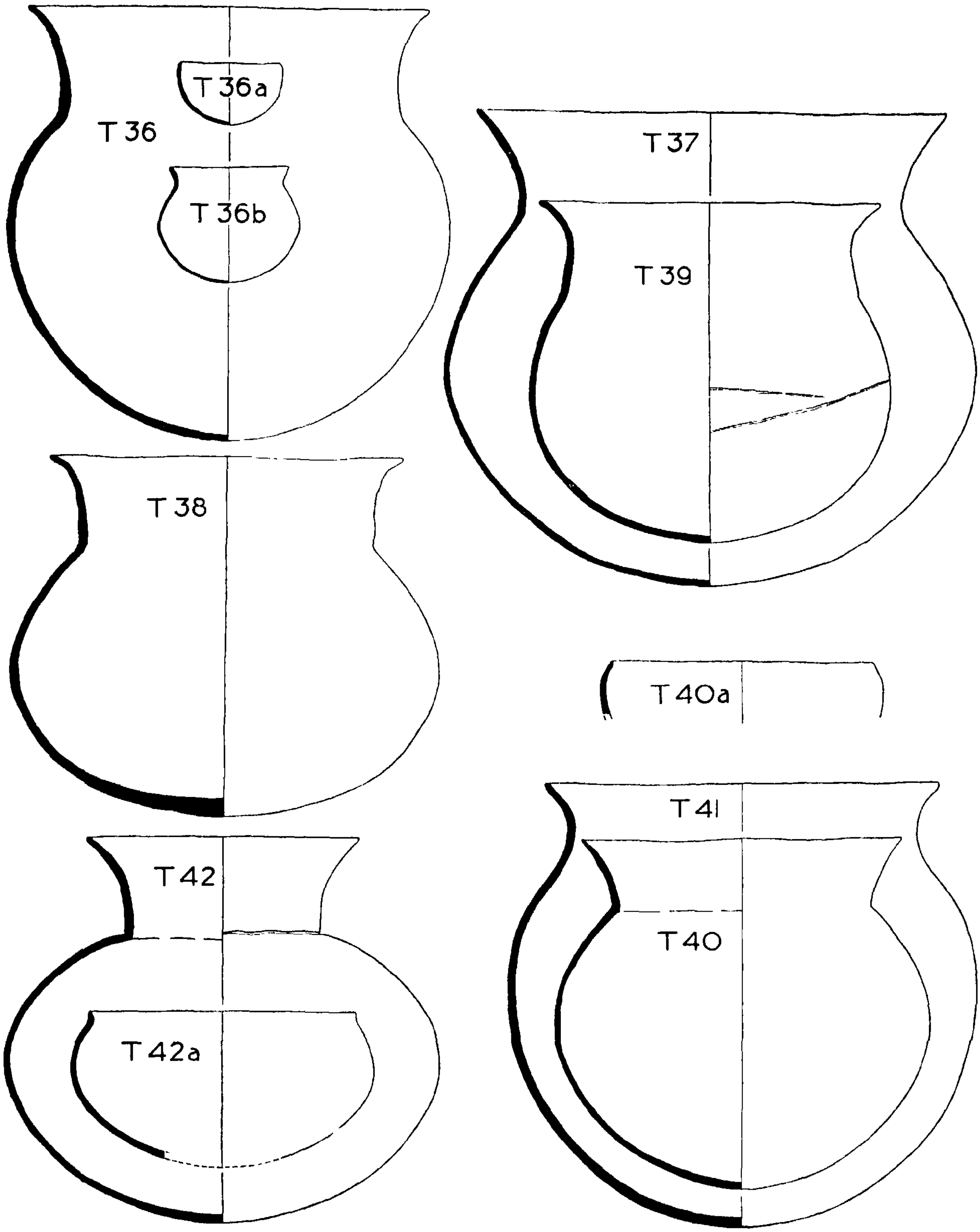


FIG. 20. *Burial-urns of the Brahmagiri Stone Axe culture IB.* $\frac{1}{6}$

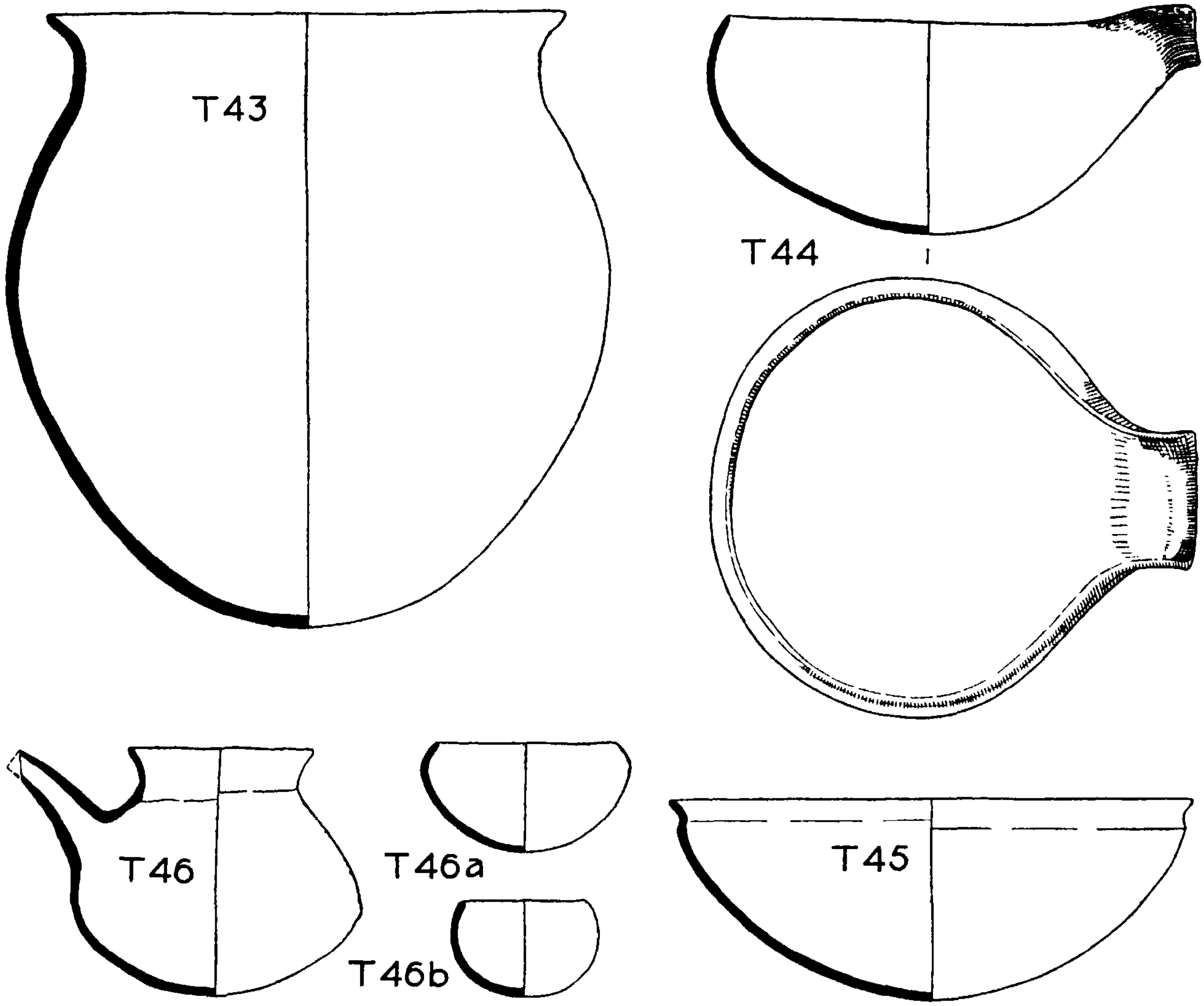


FIG. 21. *Burial-pottery of the Brahmagiri Stone Axe culture IB.* ¼

T40. Burial-urn from the lowest stratum of sub-phase IB in cutting Br. 17. It contained an infant's skull, ribs and a few long-bones, and was found covered with a bowl (T40*a*) of the same fabric.

T40*a*. Fragment of a bowl used as a lid for burial-urn T40.

T41. Burial-urn from a middle stratum of sub-phase IB in cutting Br. 17. It contained an infant's skull, broken ribs and a few long bones. Above these lay the fragmentary base of another urn, which must originally have served as a lid.

T42. Burial-urn from the upper part of sub-phase IB in cutting Br. 17. It differs from the usual type in having a dark polished surface and a weak groove at the base of the neck. It contained the bones of an infant, and was covered with an inverted bowl (T42*a*) of the same fabric.

T42*a*. Bowl of coarse grey ware with an external depression below a sharpened rim, used as a lid for burial-urn T42.

T43. Burial-urn of special importance in that it had been deposited in an otherwise megalithic stratum (site Br. 22A). It differs from the usual type in having a relatively narrower girth. It was covered with the lower half of another urn (see pl. CIX B). Above a few small bones at the bottom of the urn lay a bowl similar to T36*a*.

T44. Lipped bowl of coarse grey ware used as a cover for burial urn no. 4 (not illustrated) in Br. 16B. A similar lipped bowl, but of the black polished megalithic fabric, came from pit-circle VII (see above, p. 216, Type P16).

T45. Bluntly carinated bowl of coarse grey ware with an appreciable external depression below the rim, used as a lid for a badly broken burial-urn (not illustrated), no. 7 in Br. 17.

T46. Vessel with funnel-spout, of coarse grey ware, found beside the inhumation burial in a lower stratum of sub-phase IB in cutting Br. 17, along with two small bowls (T46*a* and *b*) of similar fabric. The funnelled vessel, for which a possible function has been suggested on p. 203, lay above the broken skull, while the two small bowls were placed near the upper ends of the two femurs (pls. CIX B and CX).

Note on burial-urns not illustrated

Burial-urn Br. 17, no. 1, from an upper stratum of sub-phase IB, was fragmentary. It contained the broken skull, some ribs and a few long-bones of a small child. The fragments of a lid, made from part of a bowl, were also obtained.

Burial-urn Br. 17, no. 2, from an upper stratum of sub-phase IB, contained an infant's skeleton. The broken rim of a bowl which had probably been used as a lid was found adhering to the mouth of the urn.

Burial-urn Br. 17, no. 3, from an upper stratum of sub-phase IB, was fragmentary. Only a few small human bones were left at the bottom.

Burial-urn Br. 17, no. 7, from a middle stratum of sub-phase I*b*, was covered with a greyish black bowl (T45, above). The contents comprised a few small decayed bones.

Burial-urn Br. 17, no. 9, from a lower stratum of sub-phase IB, was badly crushed and only a few small human bones were obtained. A bowl (lid) had collapsed into the urn.

Burial-urn Br. 21, no. 1, from a lower stratum (layer 15) of sub-phase IB, was badly disturbed, only the lower half being available. It contained some much-decayed infant-bones.

Burial-urn Br. 21A, no. 1, from a lower stratum (layer 15) of sub-phase IB, was smaller than the usual type; it had been much disturbed, but retained fragments of a child's skull, a few ribs and some long-bones.

Burial-urn 21A, no. 2, from the lowest stratum of sub-phase IB, was also badly broken. The skeletal remains, which were much decayed, comprised a child's skull and a few long-bones. The urn was covered with an inverted basin.

Burial-urn 16B, no. 3, from a lower stratum (layer 14) of sub-phase IB, contained a few infant-bones.

Burial-urn 16B, no. 4, from the lower part of sub-phase IB, was much disturbed. It contained the bones of an infant, and was covered with a lipped bowl (T44).

Figs. 22-23

To supplement the burial-urns, sherds representing the range of types from the occupation-layers of the Stone Axe culture, sub-phase IB, are here added.

T47. Rim of a large jar of dull grey ware with splayed mouth, similar to the burial-urns. Scratchings on the exterior seem to be due to wiping with a handful of grass during manufacture. This sherd is from a middle stratum of sub-phase IB, but the type recurs throughout.

T48. Vase of dull grey ware with flaring rim and globular body, a diminutive form of the burial-urn type; from an upper stratum of sub-phase IB.

T49. Rim of a small vase of black burnished ware with weak grooves round the neck; from a middle stratum of sub-phase IB.

T50. Rim of a vase of grey ware; from a middle stratum of sub-phase IB.

T51. Rim of a vase of brownish buff ware; from an upper stratum of sub-phase IB.

T52. Neck of a bottle-necked vessel of grey ware with widely splayed mouth; from a middle stratum of sub-phase IB.

T53. Rim of a vessel of grey ware with widely splayed mouth; from a lower stratum of sub-phase IB.

T54. Sherd of light grey ware with slightly undercut rim; from a lower stratum of sub-phase IB.

T55. Sherd of dull grey ware with an everted rim; from a lower stratum of sub-phase IB.

T56. Rim of red ware with internal projection; from a lower stratum of sub-phase IB.

T57. Simple rim of dull grey ware, roughly scratched before baking; from an upper stratum of sub-phase IB.

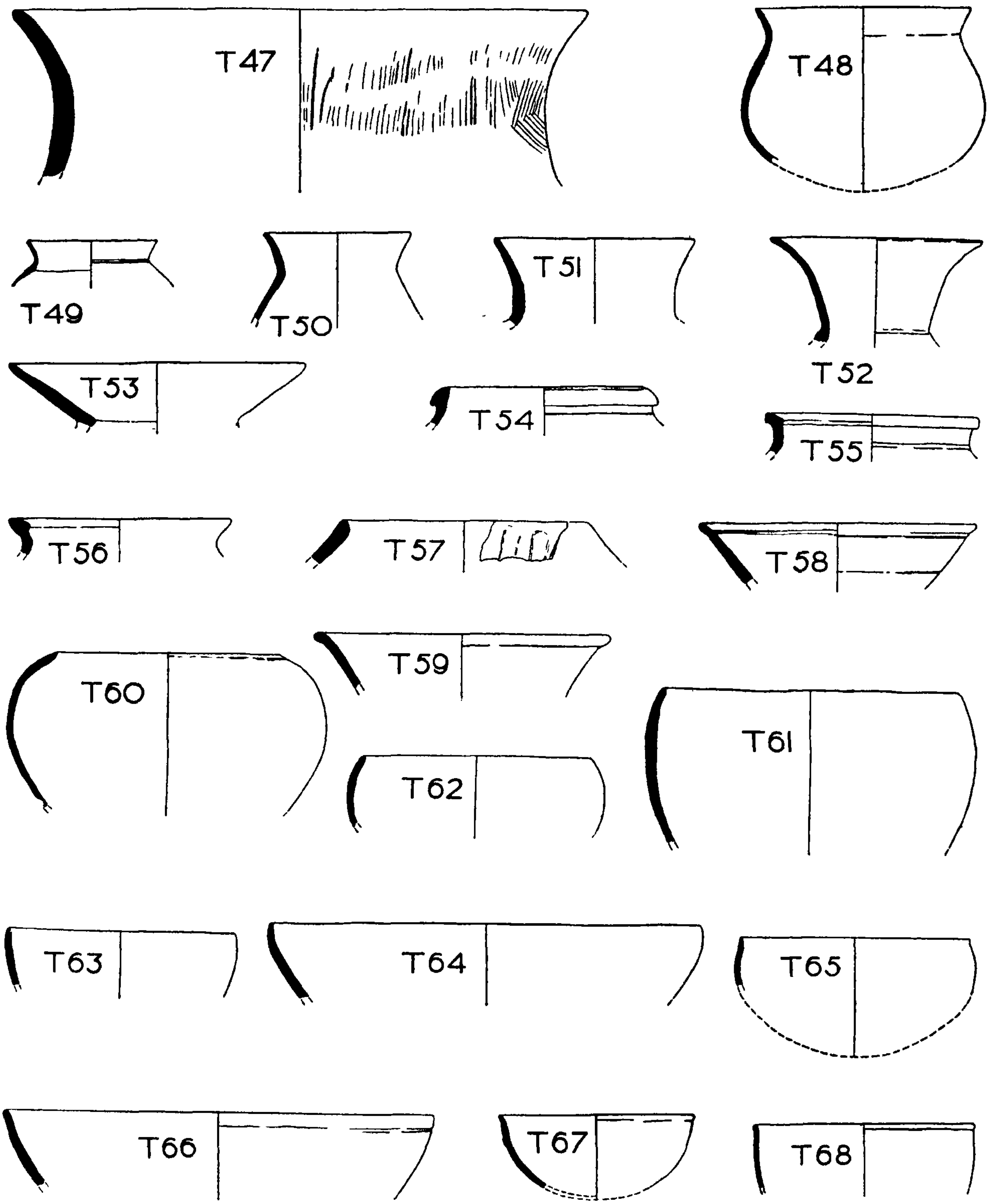


FIG. 22. *Pottery of the Brahmagiri Stone Axe culture.* ¼

T58. Fragment of a bowl of black burnished ware with internal and external grooves; from a middle stratum of sub-phase IB.

T59. Fragment of a bowl of light brown ware with flaring rim; from a lower stratum of sub-phase IB.

T60. Globular bowl of polished brown-and-black ware with incurved and weakly grooved rim; from an upper stratum of sub-phase IB. The fabric and technique of firing of this and half-a-dozen other sherds from the upper levels of sub-phase IB show some affinity with those of the megalithic ware and may be ascribed to the influence of the latter.

T61. Bowl of dull grey ware with featureless rim; from the lowest stratum of sub-phase IB. A familiar type thoughout this period.

T62. Fragment of a bowl of polished brown-and-black ware with featureless rim; from an upper stratum of sub-phase IB.

T63. Fragment of a bowl of black polished ware with featureless rim; from an upper stratum of sub-phase IB.

T64. Fragment of a bowl of light grey ware with thin sharpened rim, slightly incurved; from a middle stratum of sub-phase IB.

T65. Fragment of a bowl of dull grey ware with slightly concave profile below a thin sharpened rim; from an upper stratum of sub-phase IB.

T66. Fragment of a bowl of reddish buff ware with a weak groove below the rim; from an upper stratum of sub-phase IB.

T67. Bowl of dull grey ware with a slight external depression below the rim; from a middle stratum of sub-phase IB.

T68. Fragment of a bowl of black polished ware with slightly beaded rim; from an upper stratum of sub-phase IB.

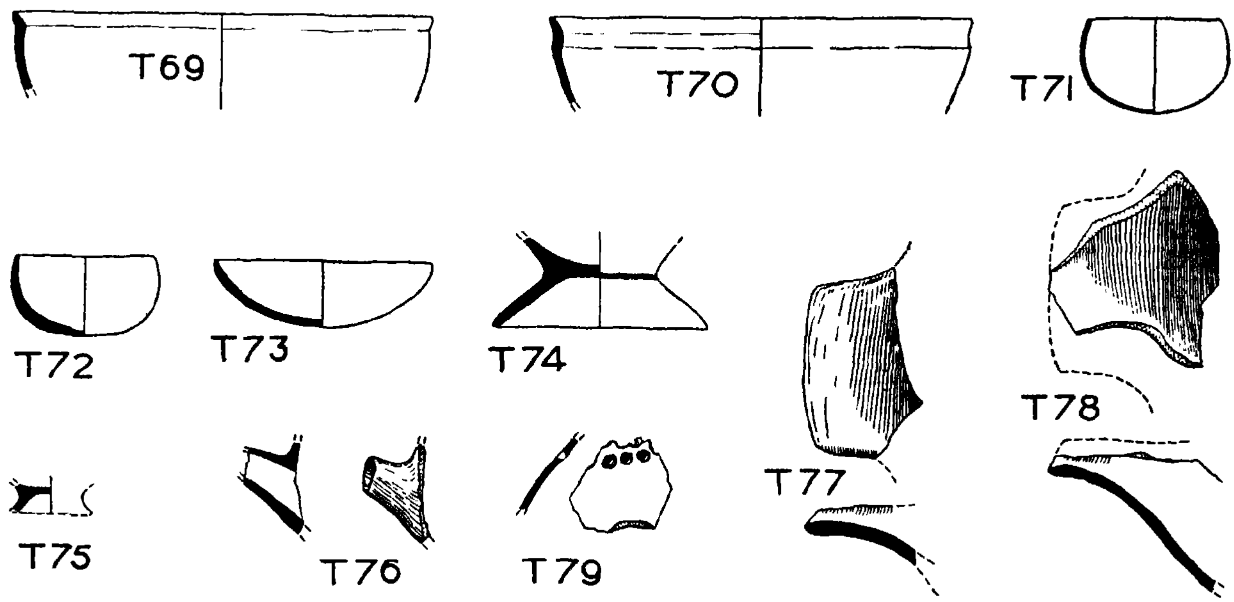


FIG. 23. *Pottery of the Brahmagiri Stone Axe culture.* ¼

T69. Fragment of a bowl of black polished ware with slightly out-turned rim; from an upper stratum of sub-phase IB.

T70. Fragment of a bowl of black polished ware with carinated shoulder; from an upper stratum of sub-phase IB.

T71. Small bowl of dull grey ware with thin sharpened rim and rounded base; from an upper stratum of sub-phase IB.

T72. Small bowl of dull grey ware with thin sharpened rim, thick sides and flat base; from an upper stratum of sub-phase IB.

T73. Shallow bowl of dull grey ware with thin sharpened rim and rounded base; from a lower stratum of sub-phase IB.

T74. Fragment of a pedestal of black polished ware from an upper stratum of sub-phase IB. It is characterized by a red-ochre band painted round the junction of the base and the body, and a red-ochre spot in the centre of the underside of the base.

T75. Fragment of a pedestal of black ware, slightly polished; from a middle stratum of sub-phase IB.

T76. Fragment of a funnel-spout of black polished ware from the lowest stratum of sub-phase IB. Similar funnels occur throughout the Stone Axe culture but are more common in the lower than in the upper levels.

T77. Fragment of a lipped spout of dull grey ware; from a lower stratum of sub-phase IB. Lipped spouts are fairly frequent throughout this period.

T78. Fragment of a lipped spout of polished brown-and-black ware; from an upper stratum of sub-phase IB.

T79. Sherd of dull grey ware, perforated before firing; from an upper stratum of sub-phase IB. Only one other perforated sherd was found in the débris of this culture. The shape of the complete vessel is unknown.

Pottery of the Brahmagiri Megalith culture

The pottery from Phase II of the town-site is characterized by the distinctive 'megalithic' fabric. It was turned on the slow wheel and has a polished and brightly coloured black-and-red or all-black surface (above, p. 208). This evolved ceramic industry is essentially distinct both from its coarse, hand-made predecessor of Phase I and from its more sophisticated successor of Phase III, although significant overlaps with both have been noted above (p. 200; cf. fig. 8).

The 'megalithic' sherds from the town-site show a wide range of types, some of which are represented in the cists and pit-circles, whilst others are peculiar to the occupation-levels. Of the latter, a unique black, highly polished bowl-fragment (T110, below) deserves special mention by reason of its high quality. The types common to town-site and megaliths occur throughout the occupation-levels, indicating that the forms peculiar to these represent difference of usage, not of chronology.

The burial-types represented on the town-site are C1, C3, C7, C13, C14, C19 and P1, P3, P11, P13, P14 and P19. The commonest types in order of frequency are the tulip-shaped vases, Type P11; carinated bowls, Types C19 and P19; dishes with incurved rims, Types C13 and P13; and bowl Types C1 and C7.

Oblique slashing (imitating cord) and incised herring-bone are the only decorative features of this pottery. Graffiti are rare on the town-site but are common on the burial-pottery (see p. 244).

Figs. 24–26

The following sherds from the occupation-layers of the Megalith culture (Phase II) illustrate the range of types.

T80. Bowl of polished black-and-red ware with sharpened rim, analogous to megalithic type C1; from a lower stratum of Phase II. A common type.

T81. Bowl of polished black-and-red ware with sharpened rim and a groove round the body, comparable with megalithic type C2; from a lower stratum of Phase II.

T82. Bowl of polished black-and-red ware with sharpened rim, distinguished by external grooves on the body; from a lower stratum of Phase II.

T83. Small bowl of polished black-and-red ware with sharpened rim, bulged body and external grooves, comparable with megalithic type C3*e*; from a lower stratum of Phase II.

T84. Bowl of black polished ware with externally grooved rim, comparable with megalithic type C3; from a lower stratum of Phase II.

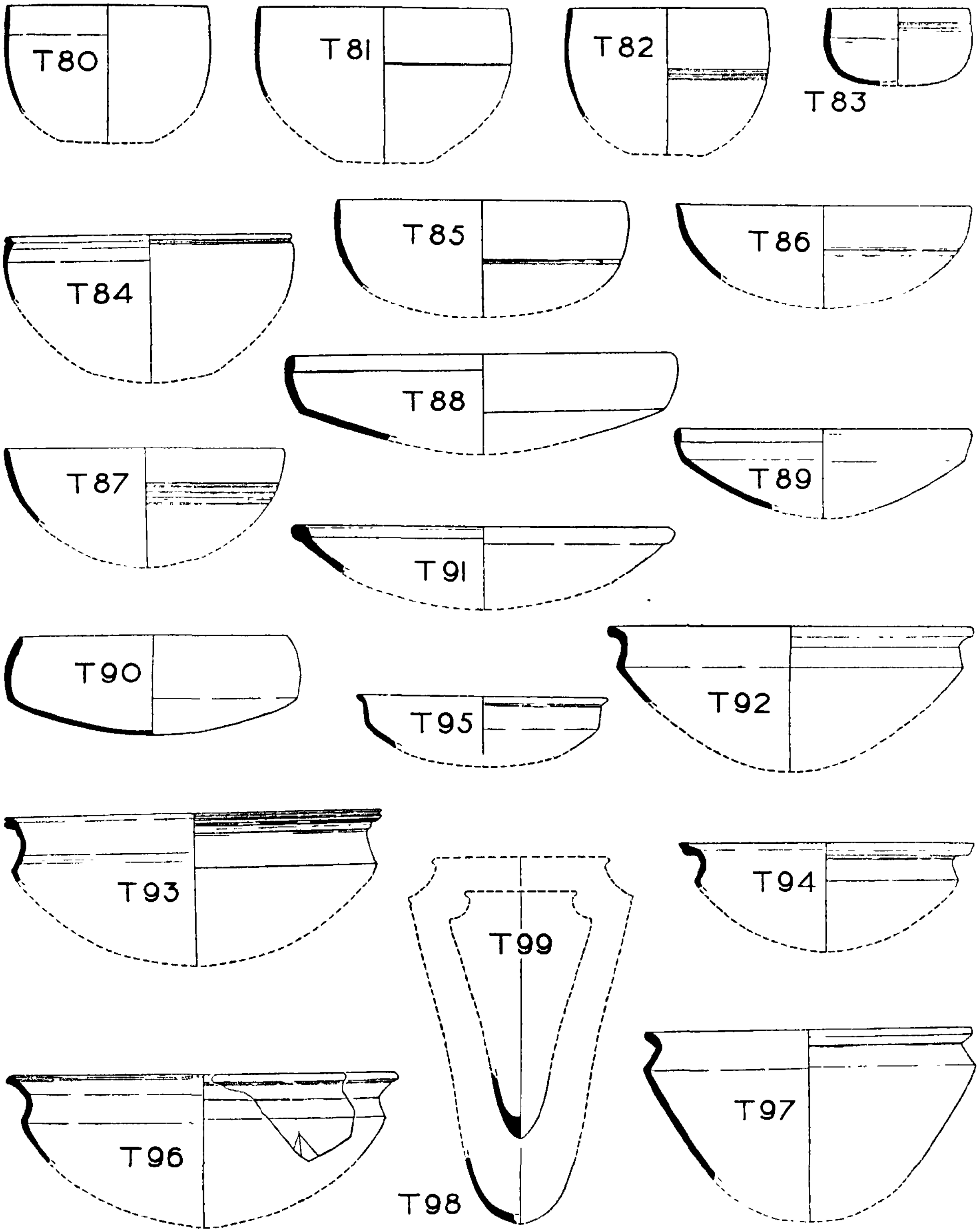


FIG. 24. *'Megalithic' pottery from the Brahmagiri town-site.* ¼

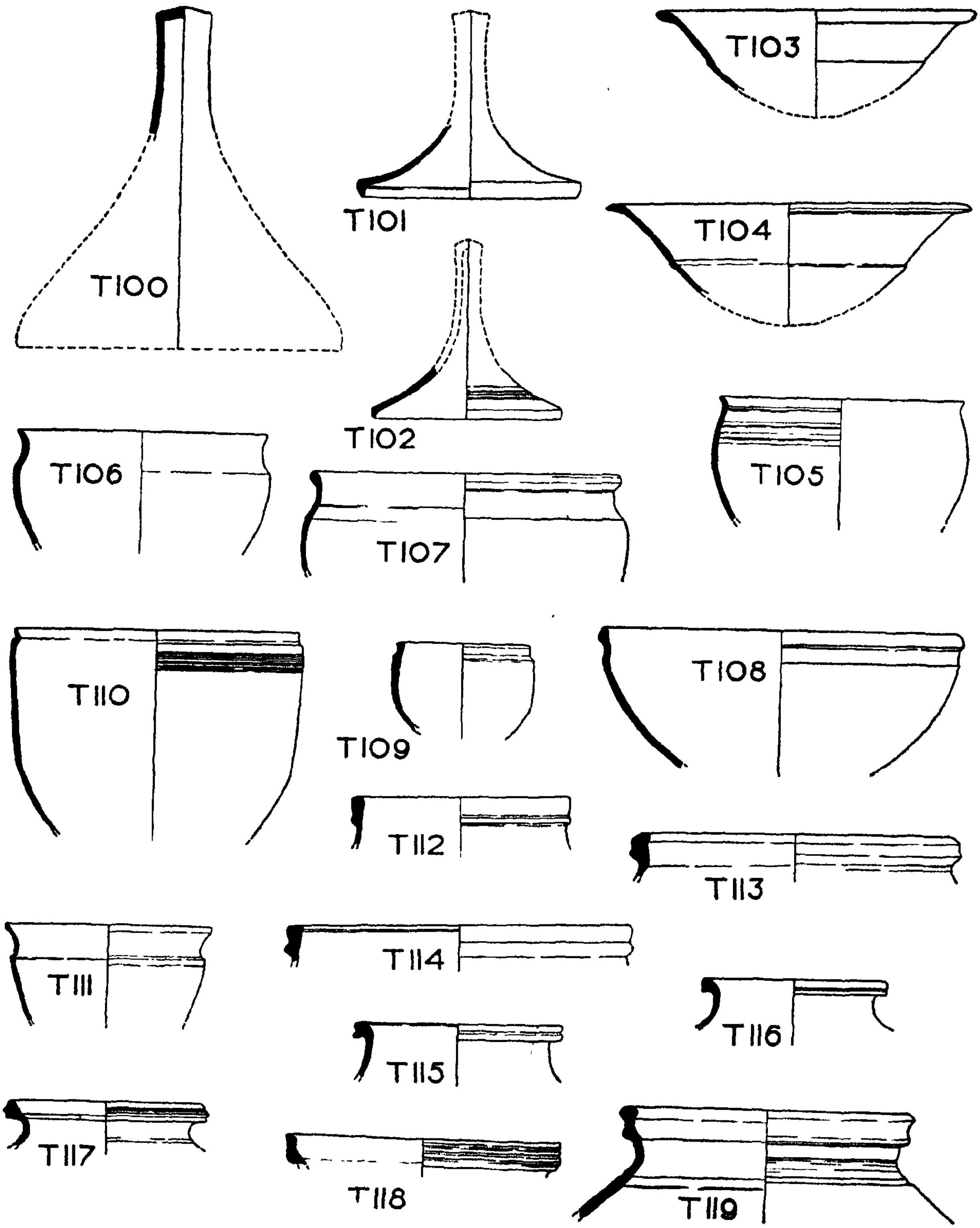


FIG. 25. *'Megalithic' pottery from the Brahmagiri town-site.* ¼

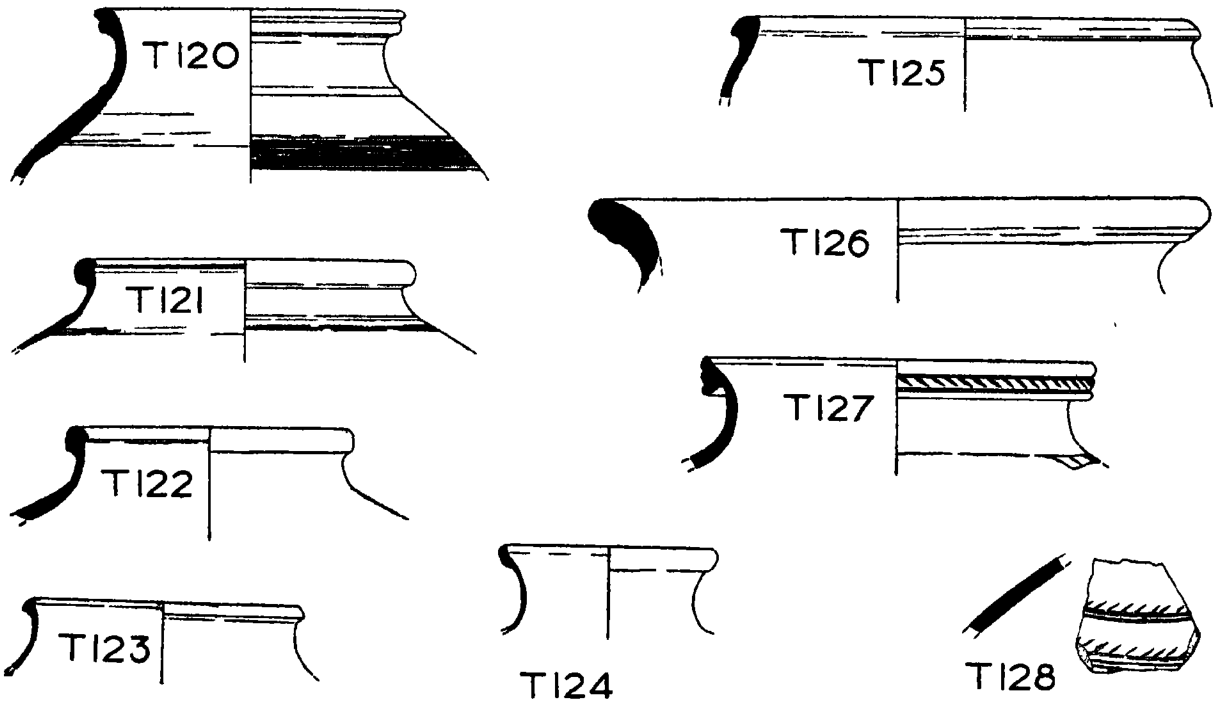


FIG. 26. '*Megalithic*' *pottery from the Brahmagiri town-site.* ¼

T85. Bowl of polished black-and-red ware with sharpened rim and external groove, analogous to megalithic type C7; from a lower stratum of Phase II. A common type.
T86. Bowl of polished black-and-red ware with sharpened rim and two external grooves; from a lower stratum of Phase II.
T87. Bowl of polished black-and-red ware with sharpened rim and multiple external grooves, comparable with megalithic type C8*a*; from a lower stratum of Phase II.
T88. Dish of polished black-and-brown ware with a slightly incurved rim, analogous to megalithic types C13 and P13; from a lower stratum of Phase II. A common type.
T89. Dish of polished black-and-red ware, of deeper form than T88; from an upper stratum of Phase II.
T90. Dish of polished black-and-red ware with carination and incurved rim; from a lower stratum of Phase II.
T91. Dish of dull red ware with a heavy rolled rim, comparable with megalithic types C14 and P14; from a lower stratum of Phase II.
T92. Fragment of carinated bowl of black highly polished ware with an everted rim, comparable with megalithic types C19 and P19; from a lower stratum of Phase II. A common type.
T93. Fragment of a carinated bowl of black polished ware with grooved rim, reconstructed from megalithic types C19 and P19; from a lower stratum of Phase II.
T94. Fragment of a carinated bowl of black polished ware; from a lower stratum of Phase II.
T95. Fragment of a small, bluntly carinated bowl of black polished ware with a slightly everted rim; from a lower stratum of Phase II.
T96. Fragment of a carinated bowl of black-and-brown ware with an everted rim, internally grooved, and bearing a post-firing graffito on the body; from an upper stratum of Phase II.
T97. Fragment of a deep carinated bowl of black polished ware with an everted rim, comparable with megalithic type P19*a*; from a lower stratum of Phase II.
T98. Base of an elongated vase of black polished ware, restored from megalithic type P1; from a lower stratum of Phase II. A rare type.
T99. A diminutive form of the previous type; from a lower stratum of Phase II.
T100. Fragment of a conical lid of black polished ware, restored from megalithic type P3; from a lower stratum of Phase II. A rare type.

T101. Fragment of a conical lid of black polished ware with incurved lip, restored from megalithic type P3; from a lower stratum of Phase II.

T102. Fragment of a conical lid of black polished ware with external grooves, restored from megalithic type P3; from a lower stratum of Phase II.

T103. Shallow tulip-shaped bowl of polished black-and-red ware with a median ledge round the body, analogous to megalithic type P11; from a lower stratum of Phase II. A common megalithic type, especially in the lower strata.

T104. Similar bowl; from a lower stratum of Phase II.

T105. Globular bowl of polished black-and-brown ware with thin, everted rim and internal grooves; from a lower stratum of Phase II. A rare type.

T106. Fragment of a bowl of polished black-and-red ware with globular body, everted rim and carinated shoulder; from a lower stratum of Phase II. A rare type.

T107. Fragment of a bowl of black polished ware with globular body, beaded rim and slightly ridged shoulder; from a lower stratum of Phase II. A rare type.

T108. Fragment of a unique bowl of brown, highly polished ware with beaded rim and bluntly carinated shoulder; from a lower stratum of Phase II.

T109. Fragment of a unique small bowl of light red ware; from a lower stratum of Phase II.

T110. Fragment of a unique straight-sided bowl of black highly polished ware with thin walls, sharpened rim, and multiple grooves; from a lower stratum of Phase II.

T111. Fragment of a vase of black-and-red ware with a pronounced concavity of the sides above a ledged shoulder; from a lower stratum of Phase II. A rare type.

T112. Rim of dull red ware with cordon; from a lower stratum of Phase II.

T113. Rim of red ware with heavy groove; from a lower stratum of Phase II.

T114. Thick grooved rim of red ware; from a lower stratum of Phase II.

T115. Grooved rim of brown ware; from a lower stratum of Phase II.

T116. Grooved rim of red ware; from a lower stratum of Phase II.

T117. Multigrooved rim of red ware with a slight cordon on the neck; from an upper stratum of Phase II.

T118. Multigrooved rim of dull brown ware; from a lower stratum of Phase II.

T119. Vessel of dark brown ware with heavy, grooved rim and corrugated neck; from a lower stratum of Phase II.

T120. Vessel of brown-and-black ware with grooved rim, a slight cordon round the neck, and a multigrooved shoulder; from a lower stratum of Phase II.

T121. Vessel of red ware with heavy internally grooved rim and grooved shoulder; from a lower stratum of Phase II.

T122. Vessel of red ware with internally beaked rim; from a lower stratum of Phase II.

T123. Vessel of red ware with nail-head rim; from a lower stratum of Phase II.

T124. Vessel of red ware, externally beaded and internally grooved; from a lower stratum of Phase II.

T125. Vessel of brown-and-black ware with clubbed rim; from a lower stratum of Phase II.

T126. Thick everted rim of red ware with a slight beading; from a lower stratum of Phase II.

T127. Rim of red ware with oblique incisions on the rim and shoulder; from a lower stratum of Phase II. Fillets of cord-like impressions on the rim are a feature of the red-ware pots from the pit-circles.

T128. Sherd of polished red ware with oblique incisions above bands of grooves; from a lower stratum of Phase II.

Pottery of the Brahmagiri 'Āndhra' culture

Pottery from Phase III or the 'Āndhra' culture of the town-site is relatively sophisticated, and is distinguished technically from the megalithic ware of Phase II by the use of the fast wheel and frequently by salt-glazing. The occurrence of 'rouletted ware' in and above the lowest of the Āndhra levels provides a firm datum-line in the first century A.D. (see p. 200). The characteristic pottery of this culture is decorated with varieties of simple rectilinear or slightly curvilinear pattern in a paste of kaolin or lime under a wash

of russet-coloured ochre.[1] The principal patterns include criss-cross lines, oblique rows of loops, simple oblique strokes, radiating lines, and rows of dots. Of these, the predominant motif is that of vertical or criss-cross lines (pl. CXII and fig. 27). This yellow-painted ware is fairly abundant on other Āndhra sites (see below, p. 308). At Chandravalli, it exhibits a greater wealth of pattern than at the lesser site of Brahmagiri.

The two commonest types on which this characteristic decoration is found are dishes with an internally beaked rim, and partially straight-sided bowls. The former occasionally bear concentric rings of rouletted pattern on the upper side of the base. The straight-sided bowls seem to be an inheritance from the simpler ceramic of the Megalith culture. A local dull grey ware with grooves and elementary incised decoration runs parallel with the painted fabrics but attains its maturity in the upper levels, when the painted wares are on the wane.

Pl. CXI

The plate illustrates seven of the eight rouletted fragments found in the recent Brahmagiri excavations; the sherd not illustrated comes from an upper Āndhra level (layer 3 of fig. 8).

1-4. Sherds with the rouletted pattern; from the lowest Āndhra level (layer 6 of fig. 8).
5. Sherd with rouletted pattern; from a lower Āndhra level (layer 5 of fig. 8).
6. Dish with an incurved rim, bearing two rows of fine rouletting, corresponding to Arikamedu Type 1; from a lower Āndhra level (layer 5 of fig. 8). See also fig. 27, T129.
7. Sherd with two rows of rouletted pattern; from a lower Āndhra level (layer 5 of fig. 8).

Pl. CXII

A representative selection of Āndhra yellow-painted pots, in the technique described above, is here illustrated.

1. Rim of Type T137 (fig. 27) painted with criss-cross pattern; from a lower stratum of Phase III (fig. 8, level 6).
2. Rim of Type T137 (fig. 27) painted with oblique lines; from a lower stratum of Phase III (fig. 8, level 5).
3. Rim of Type T137 (fig. 27) painted with criss-cross pattern; from a lower stratum of Phase III (fig. 8, level 6).
4. Same as T135 (fig. 27).
5. Same as T133 (fig. 27).
6. Rim of Type T133 (fig. 27) painted with trellis pattern; from a lower stratum of Phase III (fig. 8, level 5).
7. Rim of Type T130 (fig. 27) painted with oblique lines; from an upper stratum of Phase III (fig. 8, level 3).
8. Sherd painted with oblique lines; from an upper stratum of Phase III (fig. 8, level 4).
9. Sherd painted with radiating lines; from an upper stratum of Phase III (fig. 8, level 4).
10. Rim of Type T131 (fig. 27) painted with vertical comb pattern; from an upper stratum of Phase III (fig. 8, level 4).
11. Sherd with notches, painted with a frond-like pattern; from an upper stratum of Phase III (fig. 8, level 3).

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[1] The Archaeological Chemist notes as follows in regard to the technique of the Āndhra painted ware: 'The designs of these seem to have been executed by first applying a thin paste of kaolin or lime, producing white parallel or crossed bands, and then applying a wash of red-ochre. The red pigment shows a network of cracks under the microscope. This crackle or crazing indicates that the pots were probably salt-glazed. When the fuel has nearly burnt out and the pots are red-hot, common salt is thrown into the kiln. In the intense heat the salt volatilizes and, by chemically reacting on the surface of the pots, produces the glaze. The glazing effect is therefore superficial. With the exception of iron, no colouring-material is present. Lead, phosphate, etc., which are the usual constituents of glaze, are absent.'

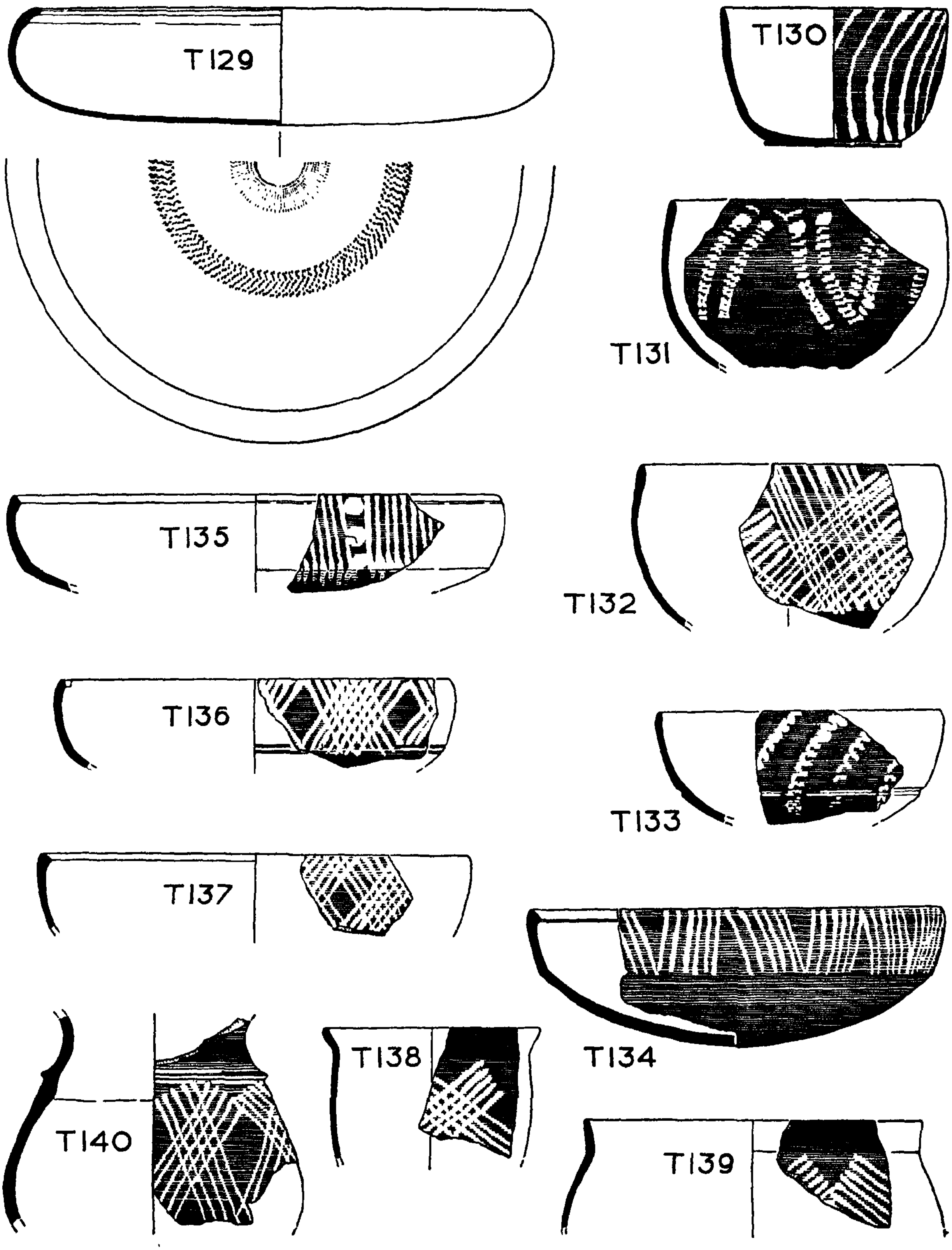
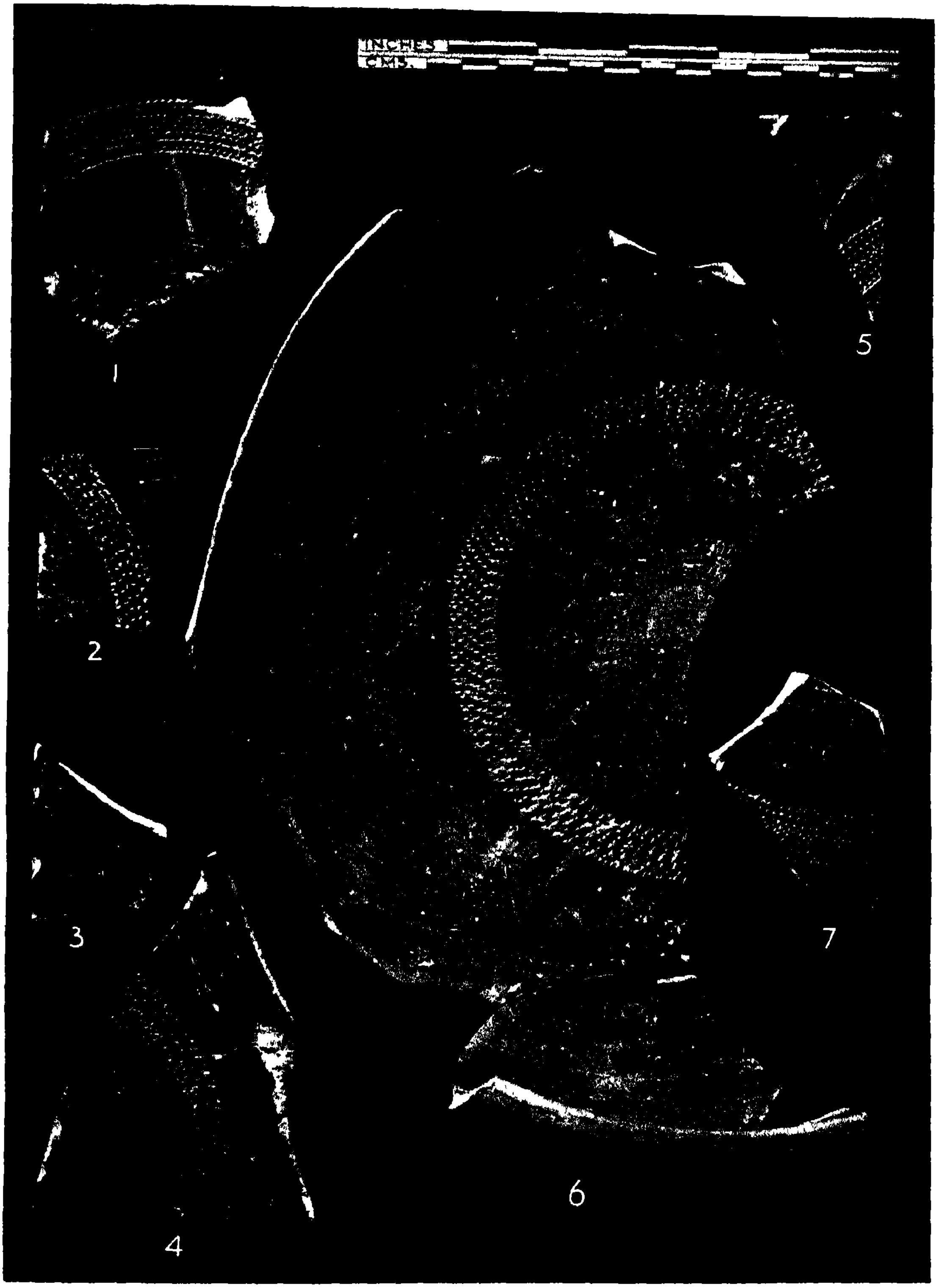
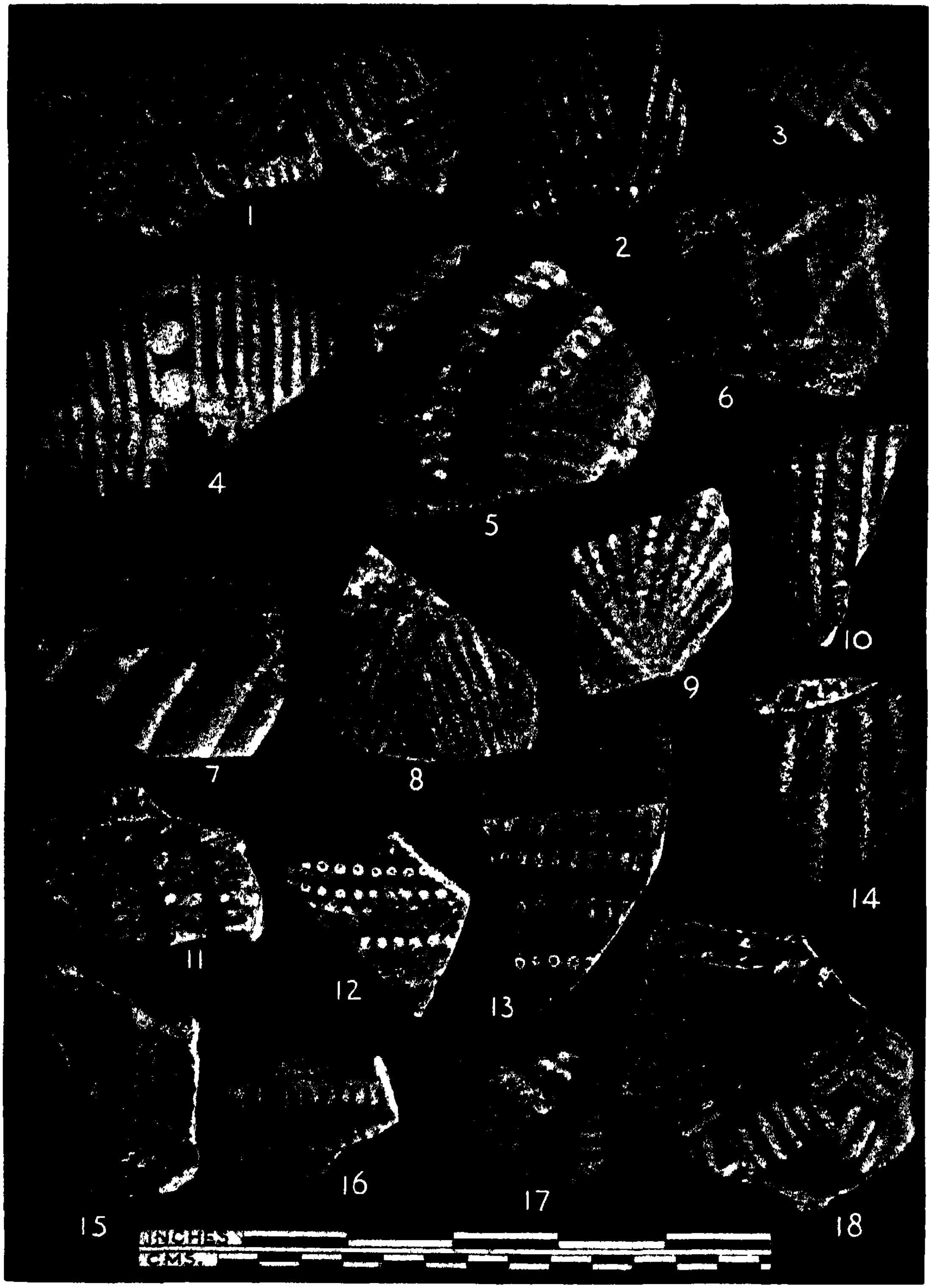


FIG. 27. *Brahmagiri: 'Āndhra' pottery.* ¼



Brahmagiri: rouletted ware



Brahmagiri: yellow-painted 'Āndhra' pottery

12. Sherd painted with horizontal rows of dots; from an upper stratum of Phase III (fig. 8, level 3).
13. Sherd painted with horizontal comb-pattern; from an upper stratum of Phase III (fig. 8, level 3).
14. Sherd with notches, painted with vertical wavy lines; from a lower stratum of Phase III (fig. 8, level 5).
15. Sherd painted with ladder-pattern; from a lower stratum of Phase III (fig. 8, level 5).
16. Rim of Type T137 (fig. 27) painted with horizontal comb-pattern; from a lower stratum of Phase III (fig. 8, level 5).
17. Rim of Type T130 (fig. 27) painted with frond-like pattern; from a lower stratum of Phase III (fig. 8, level 6).
18. Sherd painted with zig-zag pattern; from an upper stratum of Phase III (fig. 8, level 5).

Fig. 27

Further examples of 'Āndhra' yellow-painted ware are here illustrated.

T129. Dish of polished grey ware with black slip inside and on outer base and light brown externally with an internally beaked rim and with two rows of fine rouletting on the inner side of the base. This and six other sherds of rouletted ware were found in the two lowest of the Āndhra levels (fig. 8, layers 5 and 6) and one in a higher level (layer 3). See also pl. CXI.

T130. Partially straight-sided bowl of black-and-red ware, salt-glazed, with sharpened rim and disc base; painted with oblique beads. From a lower stratum of Phase III.

T131. Bowl of black-and-red ware, salt-glazed, with sharpened rim; painted with a double-zigzag pattern of wavy strokes. From a lower stratum of Phase III.

T132. Bowl of black-and-red ware, salt-glazed, with sharpened rim; painted with criss-cross pattern. From a lower stratum of Phase III.

T133. Small bowl of black-and-red ware, salt-glazed, with sharpened rim and external groove; painted with oblique rows of loops. From a lower stratum of Phase III.

T134. Bluntly carinated dish of black-and-red ware with an internally beaked rim; painted with groups of oblique strokes. From a lower stratum of Phase III.

T135. Bluntly carinated dish of black-and-red ware, salt-glazed, with an internally beaked rim; painted with oblique bands interspersed with bosses. From a lower stratum of Phase III.

T136. Dish of black-and-red ware, salt-glazed, with external grooves; painted with criss-cross pattern. From an upper stratum of Phase III.

T137. Fragment of a dish of black-and-red ware, salt-glazed with an internally beaked rim; painted with criss-cross pattern. From an upper stratum of Phase III.

T138. Partially straight-sided bowl of black-and-red ware, salt-glazed, with an everted rim; painted with criss-cross pattern. From a lower stratum of Phase III.

T139. Fragment of a globular bowl of black-and-red ware, salt-glazed with a slightly everted rim; painted with slanting strokes. From a lower stratum of Phase III.

T140. Fragment of a pot-bellied vessel of black-and-red ware, salt-glazed, with a cordon round the shoulder; painted with criss-cross pattern. From a lower stratum of Phase III.

Figs. 28–30

The following pots and sherds from the occupation-layers of the Āndhra culture illustrate the range of the unpainted types.

T141. Dish with incurved rim, of slipped and polished grey ware, black inside and on outer base and light brown on the outer sides; from a lower stratum of Phase III (fig. 8, level 5). A common type, to which rouletted decoration is sometimes applied. The type is also distinctive of the Arikamedu culture.[1]

T142. Dish of red ware with red slip; from a lower stratum of Phase III (fig. 8, level 5).

T143. Dish of slipped grey ware, possibly salt-glazed; black inside and brown outside; internally beaked rim; from a lower stratum of Phase III (fig. 8, level 4).

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[1] *Ancient India*, no. 2 (1946), pp. 45ff.

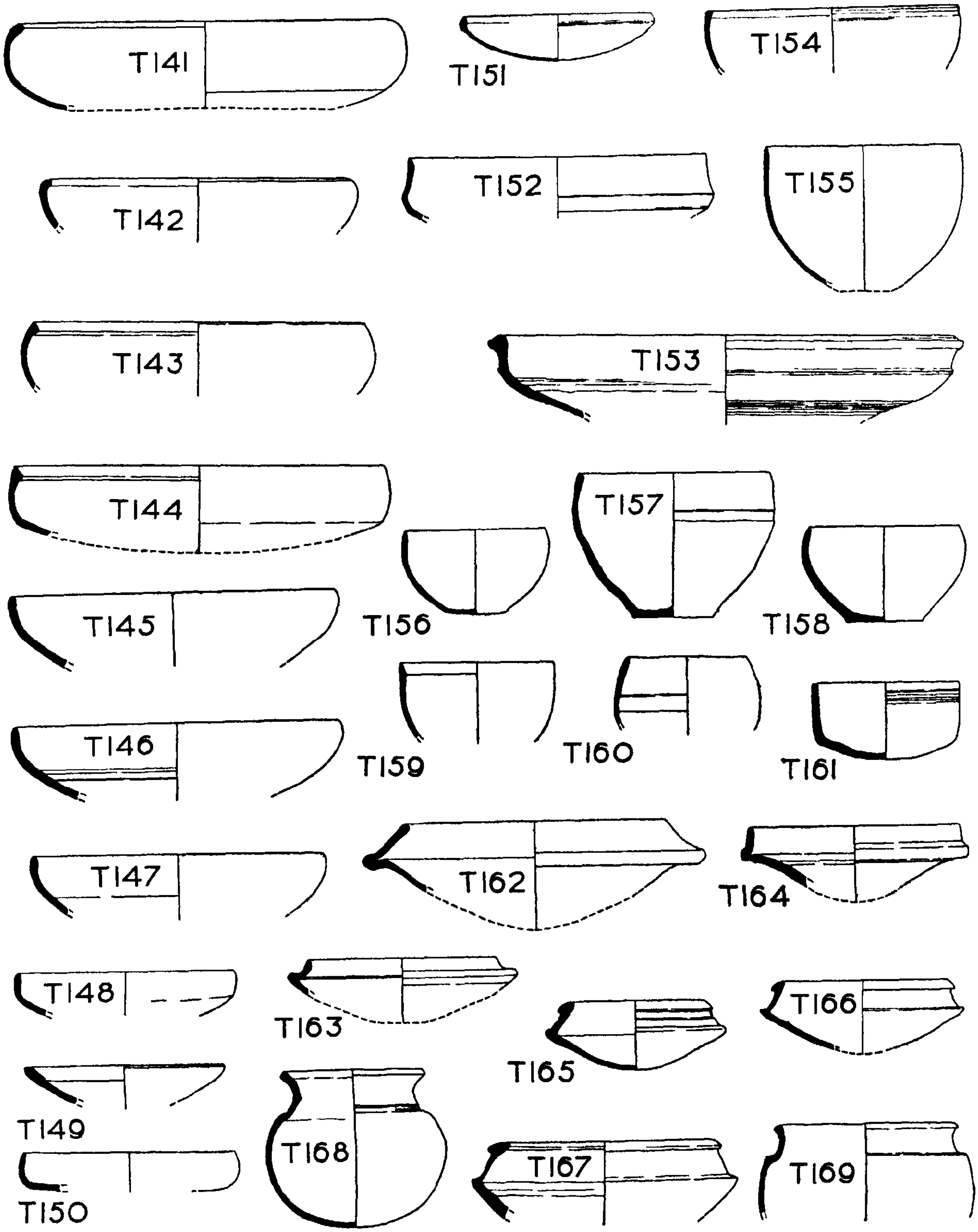


FIG. 28. *Brahmagiri: 'Āndhra' pottery.* ¼

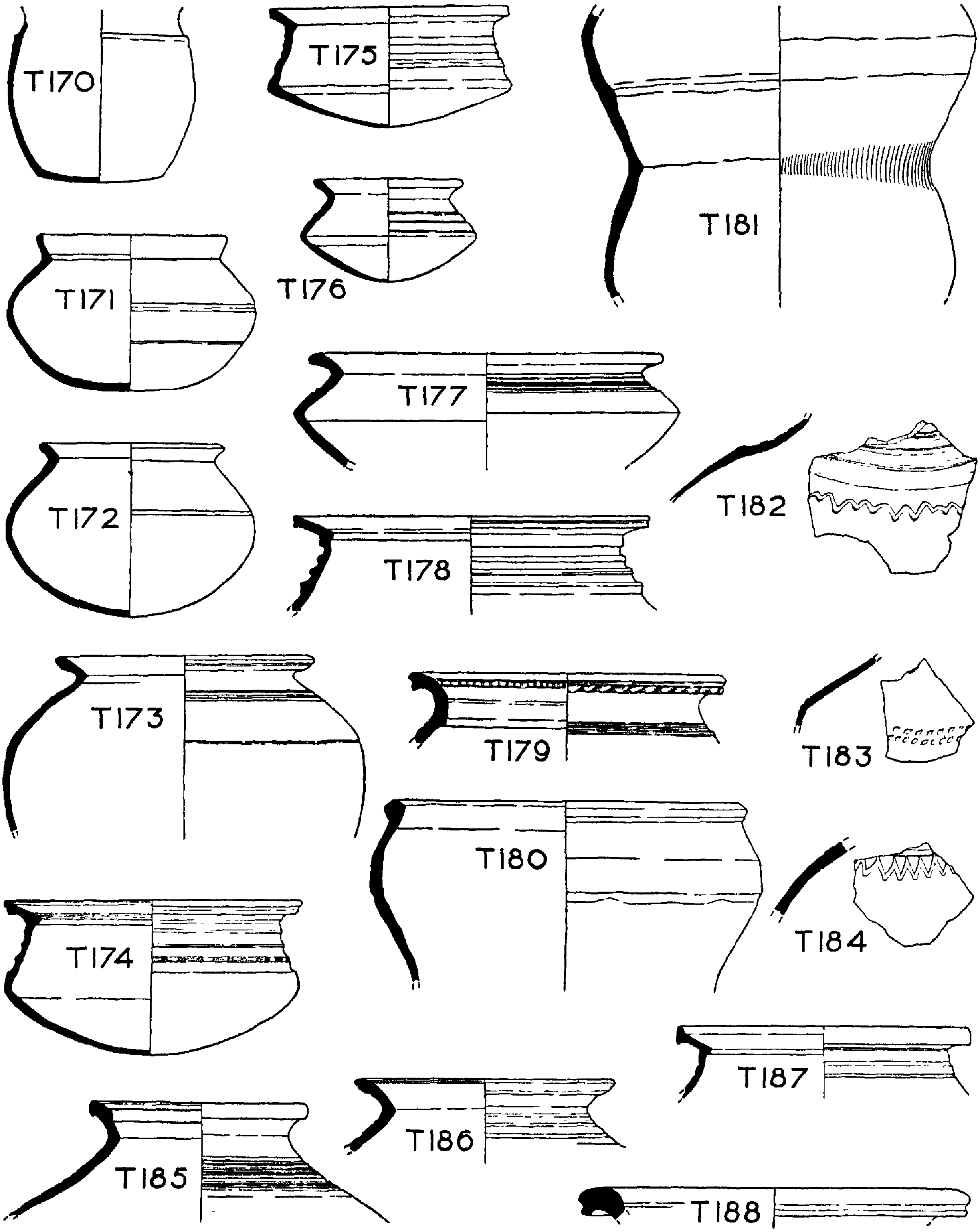


FIG. 29. *Brahmagiri: 'Āndhra' pottery.* ¼

T144. Dish of polished black ware with an internally beaked rim; from an upper stratum of Phase III (fig. 8, level 3).
T145. Dish of red ware ; from a lower stratum of Phase III (fig. 8, level 5).
T146. Dish of red ware, possibly salt-glazed; from a lower stratum of Phase III (fig. 8, level 5).
T147. Dish of dull grey ware; from an upper stratum of Phase III (fig. 8, level 3).
T148. Rim of a bluntly carinated dish of dull red ware; from an upper stratum of Phase III (fig. 8, level 3).
T149. Small dish of red ware, salt-glazed, with thickened rim; from a lower stratum of Phase III (fig. 8, level 5).
T150. Small straight-sided dish of polished brown ware; from an upper stratum of Phase III (fig. 8, level 2c).
T151. Small dish of buff ware, with red slip only on the inside, externally grooved; from an upper stratum of Phase III.
T152. Carinated dish of polished black-and-red ware with a concave profile above the carination and a thin sharpened rim; from a lower stratum of Phase III (fig. 8, level 5).

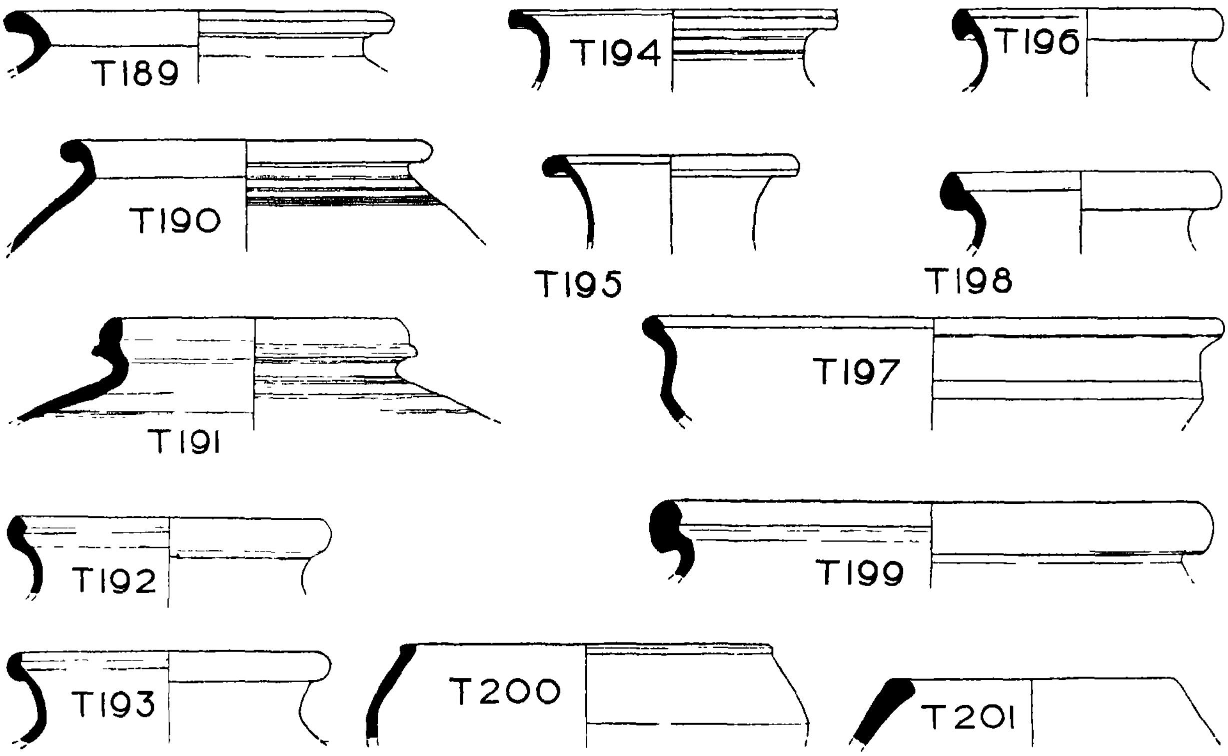


FIG. 30. *Brahmagiri: 'Āndhra' pottery.* ¼

T153. Fragment of a unique carinated dish of red ware with red slip having black patches. The rim is grooved. From a lower stratum of Phase III (fig. 8, level 6).
T154. Fragment of a bowl of slipped grey ware, salt-glazed, black inside and brown outside, with an externally grooved rim; from a lower stratum of Phase III.
T155. Bowl of polished blackish buff ware with a thin sharpened rim; from a lower stratum of Phase III (fig. 8, level 6). A common type.
T156. Bowl of red ware, possibly salt-glazed, with a sharpened rim and a flat base; from a lower stratum of Phase III (fig. 8, level 5).
T157. Bowl of dull grey ware with a flat base; from an upper stratum of Phase III.
T158. Bowl of dull red ware with a slightly incurved rim and flat base; from a lower stratum of Phase III (fig. 8, level 5).
T159. Bowl of polished and slipped grey ware, possibly salt-glazed, black inside and red outside, with an internally levelled rim; from an upper stratum of Phase III (fig. 8, level 3). A rare type.

T160. Fragment of a globular bowl of black ware, externally polished; from a lower stratum of Phase III (fig. 8, level 4).
T161. Bowl of dull grey ware, roughly potted, externally grooved below the rim; from an upper stratum of Phase III. A rare type.
T162. Lid of dull brown ware with a flanged waist; from an upper stratum of Phase III (fig. 8, level 3). A common type. Lids of an analogous type are common at Arikamedu.[1]
T163. Lid of red ware, salt-glazed, with a flanged waist; from a lower stratum of Phase III (fig. 8, level 5).
T164. Carinated lid of dull red ware; from an upper stratum of Phase III (fig. 8, level 3).
T165. Lid of dull grey ware with a flanged waist; from an upper stratum of Phase III (fig. 8, level 2*c*).
T166. Lid of dull grey ware with a flanged waist; from an upper stratum of Phase III (fig. 8, level 2*c*).
T167. Lid of dull red ware with a flanged waist; from an upper stratum of Phase III (fig. 8, level 3).
T168. Globular vessel of dull grey ware with ledged shoulder and rounded base; from an upper stratum of Phase III (fig. 8, level 3).
T169. Fragment of a vessel of dull grey ware with ledged shoulder; from a lower stratum of Phase III (fig. 8, level 5).
T170. Lower portion of a vessel of dull grey ware with a cordon round the shoulder and sagger base; from an upper stratum of Phase III (fig. 8, level 3).
T171. Globular vessel of black-and-red ware with internally hollowed rim and external grooves; from a lower stratum of Phase III.
T172. Globular vessel of grey ware with sharply out-turned rim and an external groove; from a lower stratum of Phase III.
T173. Fragment of a globular vessel of black ware, possibly salt-glazed, with grooved shoulder and body; from a lower stratum of Phase III.
T174. Vessel of dull grey ware, probably cooking vessel, with soot-stained exterior. It has a flanged, externally grooved rim, a corrugated shoulder, with a band of notches, and a rounded base; from an upper stratum of Phase III (fig. 8, level 2*c*). This type with variations is fairly abundant in the upper Āndhra levels.
T175. Carinated vessel of dull grey ware with a flanged rim, a corrugated body and a rounded base; from an upper stratum of Phase III (fig. 8, level 3).
T176. Small carinated vessel of dull ware with an everted rim, grooved shoulder and rounded base; from an upper stratum of Phase III (fig. 8, level 2).
T177. Carinated vessel of slipped grey ware possibly salt-glazed, brown inside and outer rim and black outside base, with a sharply everted rim and corrugated shoulder; from a lower stratum of Phase III (fig. 8, level 5). Analogues of this type are common at Arikamedu.[2]
T178. Fragment of a vessel of dull grey ware with flanged rim, externally grooved, and a pronouncedly corrugated shoulder; from an upper stratum of Phase III (fig. 8, level 3).
T179. Fragment of a vessel of dull grey ware with an applied cord-like band below the rim and a row of notches on the interior; from an upper stratum of Phase III (fig. 8, level 3).
T180. Fragment of a unique vessel of dull red ware, roughly potted, with a heavy beaded rim; from an upper stratum of Phase III (fig. 8, level 2*c*).
T181. Fragment of a unique gourd-shaped vessel of dull grey ware, very crudely potted; from an upper stratum of Phase III (fig. 8, level 2*c*).
T182. Sherd of dull grey ware with grooves and an incised wavy-band; from an upper stratum of Phase III (fig. 8, level 2).
T183. Sherd of highly polished black ware decorated with two rows of notches; from an upper stratum of Phase III (fig. 8, level 2).
T184. Sherd of dull grey ware with a row of incised chevrons below grooves; from an upper stratum of Phase III (fig. 8, level 2).
T185. Rim of a vessel of grey ware with an under-cut and internally grooved rim and multigrooved shoulder; from an upper stratum of Phase III (fig. 8, level 2*c*).

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[1] *Ancient India*, no. 2 (1946), p. 66, Type 29.
[2] Ibid., p. 63, Type 24.

T186. Rim of a vessel of light brown ware with a sharply everted rim, grooved internally and externally, and a corrugated shoulder; from a lower stratum of Phase III (fig. 8, level 5).

T187. Vessel of dull grey ware with a flanged rim, internally grooved, and a grooved neck; from a lower stratum of Phase III (fig. 8, level 5).

T188. Grooved rim of slipped red ware; from a lower stratum of Phase III (fig. 8, level 6).

T189. Vessel of slipped red ware, salt-glazed, with a sharply everted rim; from a lower stratum of Phase III (fig. 8, level 5).

T190. Vessel of slipped red ware with beaded rim, and grooved shoulder; from a lower stratum of Phase III (fig. 8, level 5).

T191. Vessel of red ware, salt-glazed, with cordoned rim; from an upper stratum of Phase III (fig. 8, level 3).

T192. Vessel of grey ware with red slip and recurved rim; internally beaked and grooved; from a lower stratum of Phase III (fig. 8, level 5).

T193. Vessel of polished brown ware with a recurved rim; from a lower stratum of Phase III (fig. 8, level 5).

T194. Vessel of buff ware with brown slip, salt-glazed, with an undercut rim; from a lower stratum of Phase III.

T195. Vessel of red ware, salt-glazed, with an everted and undercut rim; from a lower stratum of Phase III (fig. 8, level 5).

T196. Vessel of buff ware with brown s'ip, possibly salt-glazed, with a nail-head rim; from a lower stratum of Phase III (fig. 8, level 5).

T197. Carinated vessel of dull red ware with an internally beaded rim; from a lower stratum of Phase III (fig. 8, level 5).

T198. Vessel of red ware, salt-glazed, with a pronounced rim, internally grooved, from a lower stratum of Phase III (fig. 8, level 5).

T199. Vessel of slipped grey ware, possibly salt-glazed, black inside brown outside, with a thick rolled rim and a pronounced internal groove; from an upper stratum of Phase III (fig. 8, level 3).

T200. Vessel of dull grey ware with a slightly beaded rim; from a lower stratum of Phase III (fig. 8, level 6).

T201. Vessel of dull grey ware with a flattened and thickened rim; from a lower stratum of Phase III (fig. 8, level 6).

(*h*) *Graffiti on Brahmagiri Megalith pottery*

It has long been observed that post-firing graffiti are not uncommon on pottery from the megalithic tombs of India, though they appear to be absent from the urn-field pottery. They have been variously designated 'potters' marks', 'owners' marks' and 'tribal marks'.[1] Hunt regards them as symbols rather than as names, and notes that a double-circle mark 'seems to hint at a symbol indicating a young girl'. Yazdani has classified a number of these marks from various sites in the Deccan and South India,[2] and has inferred that 'they are like the Egyptian hieroglyphs and have been used sometimes as ideographs to express ideas, and sometimes phonetically to represent symbols or letters'. This is guesswork and gets us no further.

Twenty-four graffiti occur on the burial-pottery at Brahmagiri, but only six on 'Megalith' sherds from the town-site (four of them too fragmentary for illustration). In all cases

[1] E. H. Hunt, 'Hyderabad Cairns (their problems)', *Journ. of the Hyderabad Archaeological Society*, 1916, pp. 180-224; and 'Hyderabad Cairn Burials and their significance', *Journ. of the Roy. Anthropological Institute*, LIV (1924), 140-156; F. J. Richards, 'Note on some Iron Age Graves in the North Arcot District', ibid., 157-165; and A. Aiyappan, 'Rock-cut Cave-tombs of Ferske, S. Malabar', *Quarterly Journ. of the Mythic Soc.*, New Series, XXIII, no. 3 (Bangalore, Jan. 1933), 299-314.

[2] G. Yazdani, 'Megalithic Remains of the Deccan—a New Feature of them', *Journ. of the Hyderabad Archaeological Society*, 1917, pp. 56-79; R. Bruce Foote, *Catalogue of Prehistoric Antiquities* (Madras, 1901), pl. XXXV.

they are scratched after the firing of the pot. All varieties are here illustrated (fig. 31); those which occur in groups of two or three are shown in correct interrelationship.

1. Ladder-like mark, a variation of Yazdani no. 67. On a pot of Type C13*a* (fig. 10). One example.
2. Triangular mark, resembling Yazdani no. 68. On a pot of Type P15*a* (fig. 14). A common graffito at Brahmagiri. This mark also occurs on six other pots, of Types P6, P8, P14*a* and P20 (figs. 13–15).
3. Rough cross, resembling Yazdani no. 52. A common graffito at Brahmagiri. It occurs sometimes alone, but is more familiar in association with other markings. This mark occurs on three pots of Types C1, C1*a* and C17 (figs. 9-10).
4. Rough cross, resembling Yazdani no. 51. On a pot of Type C9 (fig. 9). One example.
5. Three oblique lines, a variation of Yazdani no. 118. On a pot of Type P18*b* (fig. 15). This mark also occurs on another pot, of Type C27 (fig. 12).
6. Variation of a rough cross. On a pot of Type C5 (fig. 9). One example.
7. Rough scratchings on a pot of Type P18*a* (fig. 15). One example.
8. Group of two pot-marks, a rough cross and a ladder-like mark. On a pot of Type C29 (fig. 12). One example.
9. Group of three pot-marks, variation of Yazdani nos. 30, 33, 40 and 45. On a pot of Type C28*b* (fig. 12). One example.
10. Group of two pot-marks, the so-called 'bird's tail' of Foote, and a rough cross; variation of Yazdani nos. 40 and 51. On a pot of Type C5*a* (fig. 9). One example.
11. Group of three pot-marks, variations of the so-called 'arrow-head' of Foote. On a pot of Type C28*a* (fig. 12). One example.
12. Group of two pot-marks, variation of the 'arrow-head'. On a pot of Type C7*b* (fig. 9). One example.
13. Mark resembling Yazdani no. 45. On a pot of Type C20*c* (fig. 11). One example.
14. Mark resembling Yazdani no. 58. On a pot of Type P20*a* (fig. 15). One example.
15. Rough scratchings on a pot of Type C3 (fig. 9). One example.
16. Sherd with an 'arrow-head' mark, resembling Yazdani no. 16; from an upper stratum of the Megalith culture on the town-site (fig. 8, level 3). See also T96 (fig. 24).
17. Sherd with an incomplete mark; from a lower stratum of the Megalith culture on the town-site (fig. 8, level 6).

(iv) OTHER FINDS FROM BRAHMAGIRI [1]

(i) *Polished stone axes* [2]

The 1947 excavations yielded fifteen complete and twenty-nine broken polished stone axes of pointed-butt type. They were manufactured of Trap-rock, and the presence of cores and flakes of this material in the occupation-strata (mostly in the IA culture and low levels of IB) indicates a local industry. The process of manufacture falls into three stages[3] : (i) the stone was roughly chipped into shape (cf. pl. CXIII, 4) by means of a stone hammer; (ii) irregularities above the intended surface were broken down and the edge was shaped by 'pecking' with a pointed stone; and (iii) the implement, particularly its cutting edge, was polished by grinding on a stone, possibly supplemented by friction with

[1] *This section of the report has been prepared mainly by* Mr. B. B. Lal.

[2] For the distribution of polished pointed-butt stone axes in India, see below, Appendix A, p. 295.

[3] Cf. Bruce Foote in Journ. As. Soc. Bengal, LVI (1888), 269-270.

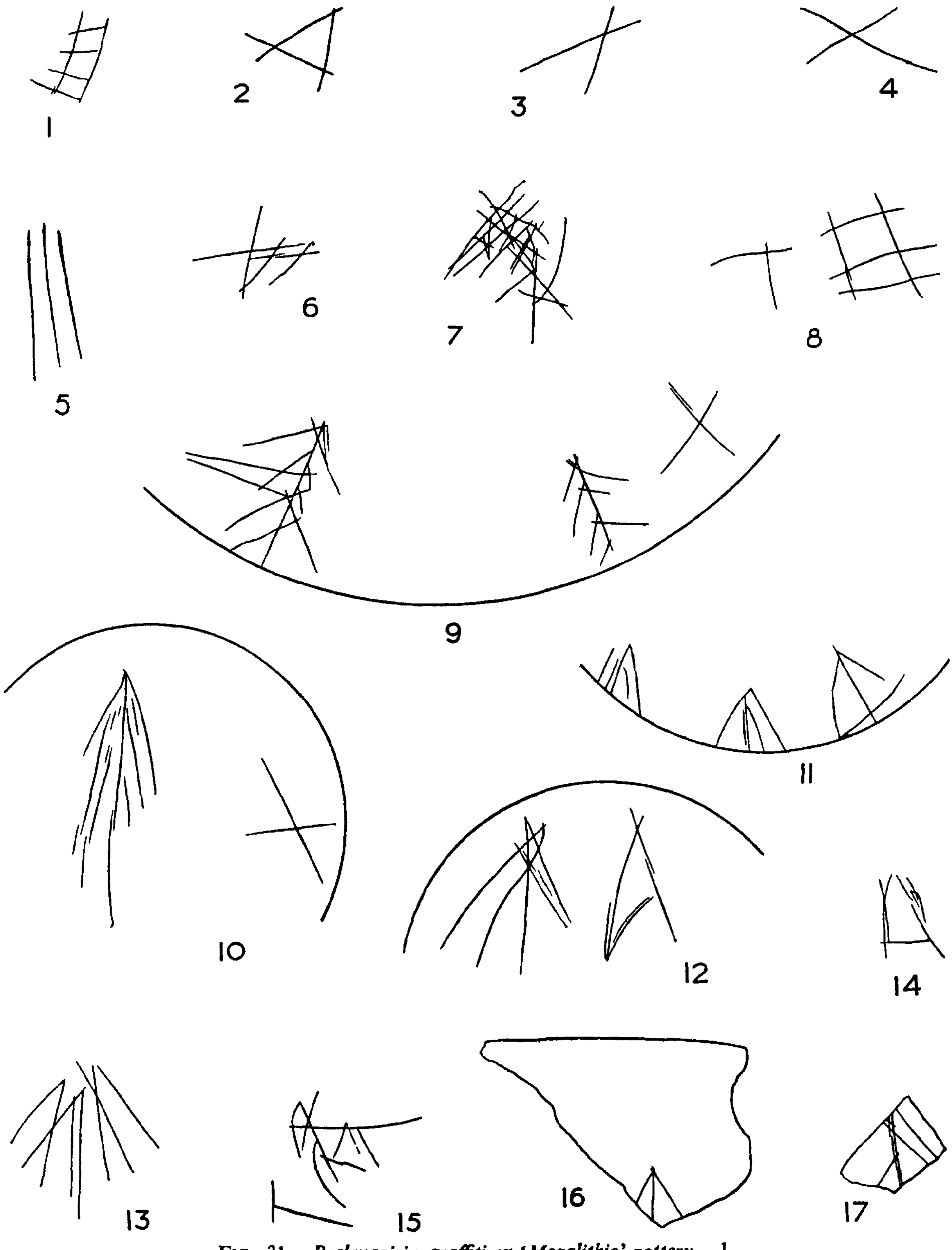


FIG. 31. *Brahmagiri: graffiti on 'Megalithic' pottery.* ½

sand. A majority of these axes was obtained from the lower levels of the IB culture, while one complete example (Type Aii, below) and three broken axes, besides several chips, came from the IA culture. A few were recovered from the overlap of the Stone Axe and Megalith cultures, but the Āndhra levels yielded only two stray examples.

These axes fall into two broad groups: A, with flat or flattened-lenticular section; and B, with lenticular or ovoid section. The former are mainly confined to the lower levels, whereas the latter occur throughout. The following is a more detailed classification (figs. 32-33):—

Type Ai is a small flat axe, triangular in shape. Two complete specimens, one each from the early and late levels of the IB culture, were obtained (fig. 32; pl. CXIII, 1-2).

Type Aii is a small flat axe with roughly parallel sides which converge abruptly to a pointed butt. The solitary example found (fig. 32; pl. CXIII, 3) came from the IA culture.

Type Aiia is an elongated variant (fig. 32; pl. CXIII, 4). Two specimens, one complete and one broken, were obtained, both from the middle levels of the IB culture.

Type Aiii is a small flattened-lenticular axe (fig. 32; pl. CXIII, 5-6). Two complete and three fragmentary examples were obtained.

Type Aiiia is an elongated variant of which three complete and two fragmentary specimens were recovered (fig. 32; pl. CXIII, 7–9). The type and its variant appear in low levels of the IB culture and continue up to the overlap of this culture with the Megalithic.

Type Bi is a small lenticular axe. Two complete and one fragmentary examples were obtained (fig. 32; pl. CXIII, 10-11).

Type Bia is an elongated variant. Of this two complete and two broken examples were found (fig. 32; pl. CXIII, 12-13). The type with its variant appears late in the IB culture and continues occasionally till late Megalithic levels.

Type Bii is an elongated ovoid axe. One complete and eleven fragmentary specimens were obtained (fig. 33; pl. CXIII, 14–16). The type is most frequent in the middle levels of the IB culture.

Type Biii is a large ovoid axe. One complete and two broken examples were recovered from the low and middle levels of the IB culture (fig. 33; pl. CXIII, 17).

Polished stone adze.—A solitary example of an adze (fig. 33, pl. CXIII, 18) was obtained from a late phase of the IB culture.

Selected pointed-butt polished stone axes (pl. CXIII)

1. Small flat triangular, Type Ai; from a middle stratum of the IB culture. See also fig. 32. (Br. 21–135.)
2. Small flat triangular, but broken, Type Ai; from a middle stratum of the IB culture. (Br. 17–21.)
3. Small flat with roughly parallel sides which abruptly converge to a pointed-butt, Type Aii; IA culture. See also fig. 32. (Br. 22–333.)
4. Elongated variant of no. 3, Type Aii*a*; from a middle stratum of the IB culture. See also fig. 32. (Br. 21–277.)
5. Small flattened-lenticular, Type Aiii; from an early stratum of the IB culture. See also fig. 32. (Br. 21–281.)
6. Small flattened-lenticular, Type Aiii; from a late stratum of the IB culture. (Br. 17–7 .)
7. Elongated flattened-lenticular, Type Aiii*a*; from a middle stratum of the IB culture. (Br. 21–136.)
8. Elongated flattened-lenticular, Type Aiii*a*; from a middle stratum of the IB culture. See also fig. 32. (Br. 21–134.)
9. Elongated flattened-lenticular, Type Aiii*a*; from a middle stratum of the IB culture. (Br. 21–280.)
10. Small lenticular, Type Bi; from a late stratum of the IB culture. See also fig. 32. (Br. 21–186.)
11. Small lenticular, Type Bi; from a late stratum of the IB culture. (Br. 17–62.)
12. Elongated lenticular, Type Bi*a*; from an early stratum of the Āndhra culture. See also fig. 32. (Br. 21–19.)
13. Elongated lenticular, Type B*ia*; from an early stratum of the IB culture. (Br. 16B–25.)

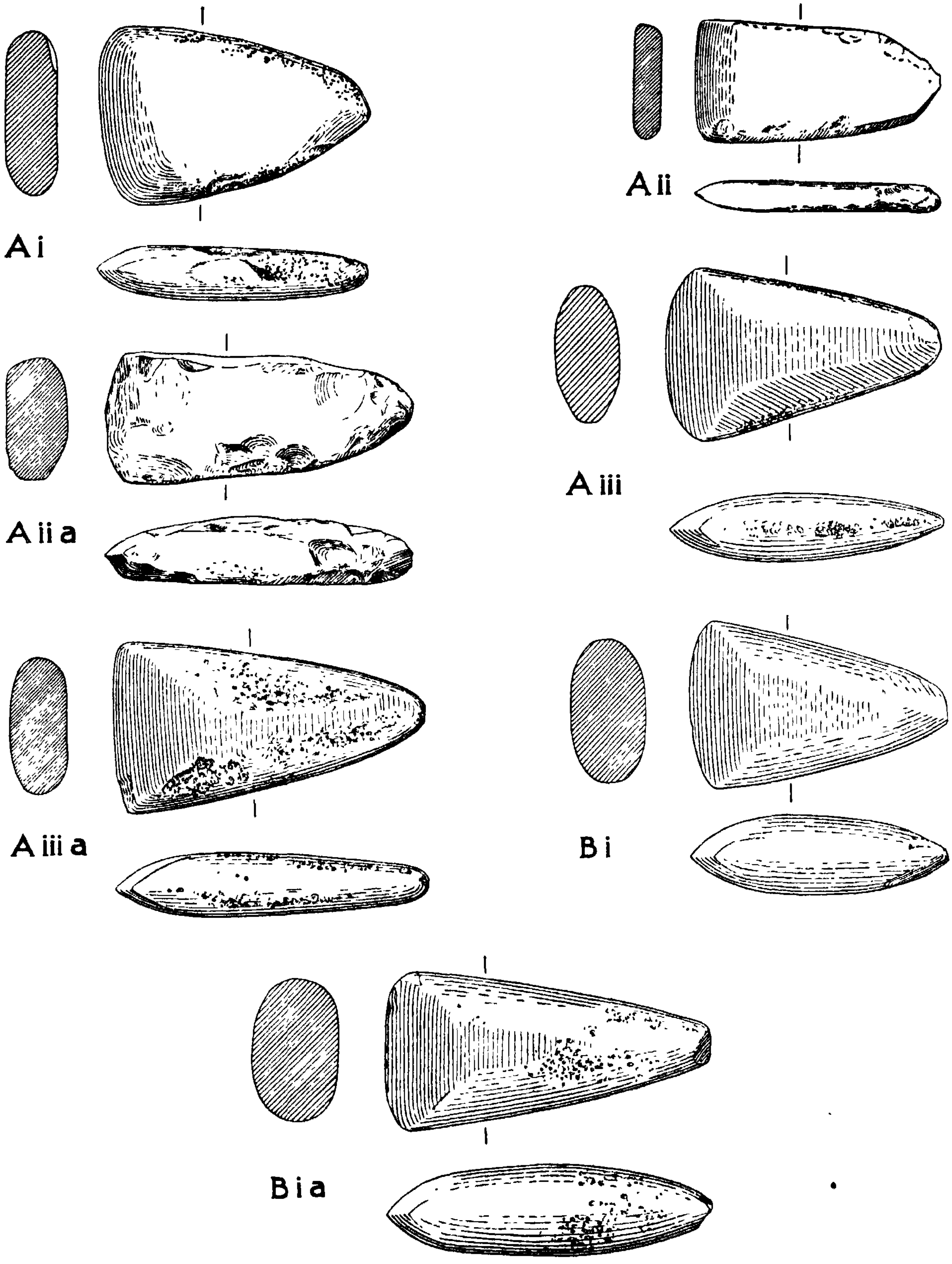


FIG. 32. *Types of stone axe; Brahmagiri.* ½

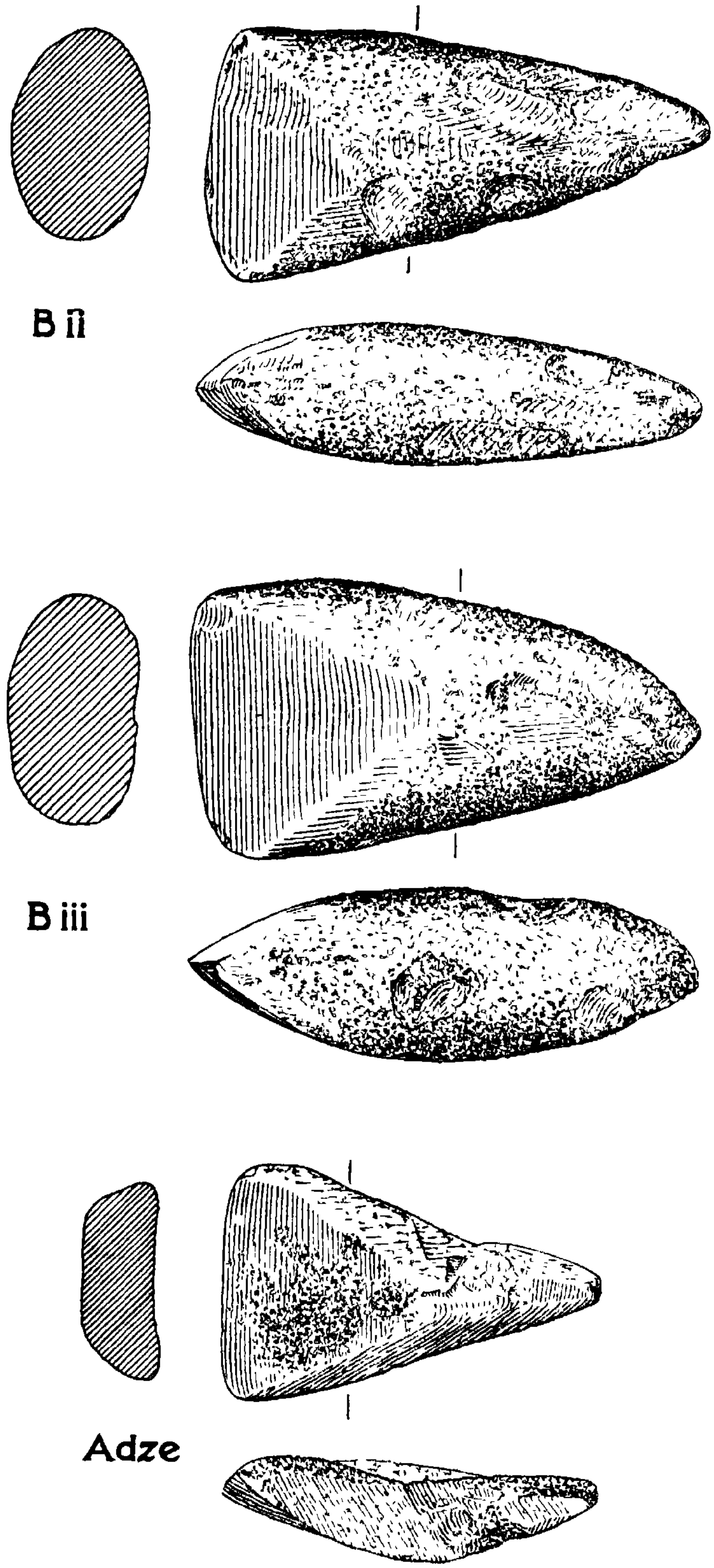


FIG. 33. *Types of stone axe and adze ; Brahmagiri.* ½

14. Elongated ovoid, Type Bii; from an early stratum of the IB culture. See also fig. 33. (Br. 16B–25.)
15. Elongated ovoid, broken, Type Bii; from a late stratum of the IB culture. (Br. 21–227.)
16. Elongated ovoid, broken, Type Bii; from a late stratum of the IB culture. (Br. 21–267.)
17. Large-sized ovoid, Type Biii; from an early stratum of the IB culture. See also fig. 33. (Br. 16B–25.)

Polished stone adze (pl. CXIII)

18. From a late stratum of the IB culture. This is the only adze from the site. See also fig. 33. (Br. 19–4.)

(*j*) *Microliths* [1]

The present excavations yielded one hundred and two microliths besides twenty-three amorphous flakes. The material used includes jasper, agate, carnelian, flint, common opal and rock-crystal [2]. With due allowance for the fact that, even in an evolved microlithic industry, retouched or specialized implements form only a minute proportion of the whole, it must be affirmed that the Brahmagiri industry is crude in the extreme, and rarely exhibits any effective attempt at retouching.

The implements may be divided into the following types:—

Type I (sixty-four examples): Double-edged blade without retouch. Type I*a* (three examples) has one edge slightly serrated, apparently deliberately. Type I*b* (seven examples) differs from the main type in having one end slightly curved; in some cases at least, this is doubtless an accidental feature, although it provides a useful hold for the thumb and forefinger.

Type II (six examples): Blade with battered back blunted by steep retouching. Type II*a* (three examples) has the non-battered edge slightly serrated.

Type III (one example): Crescentic blade with battered back.

Type IV (one example): Narrow leaf-like blade with point at both ends and battered back. It is a cross between a crescent and a point. Type IV*a* (one example) is a point with a curved back but without retouch; variant IV*b* (one example) differs from IV*a* in having a battered back. Type IV*c* (one example) is a pointed triangular blade; variant IV*d* (one example) differs from it in having a serrated edge. Type IV*e* (one example) is a blade with a point retouched like the sharpened end of a pencil. Type IV*f* (one example) has a double-shouldered point. Type IV*g* (one example) has a small oblique point. Type IV*h* (two examples) has a lateral beak-like point somewhat resembling a beaked graver (Type V); its edges are slightly serrated.

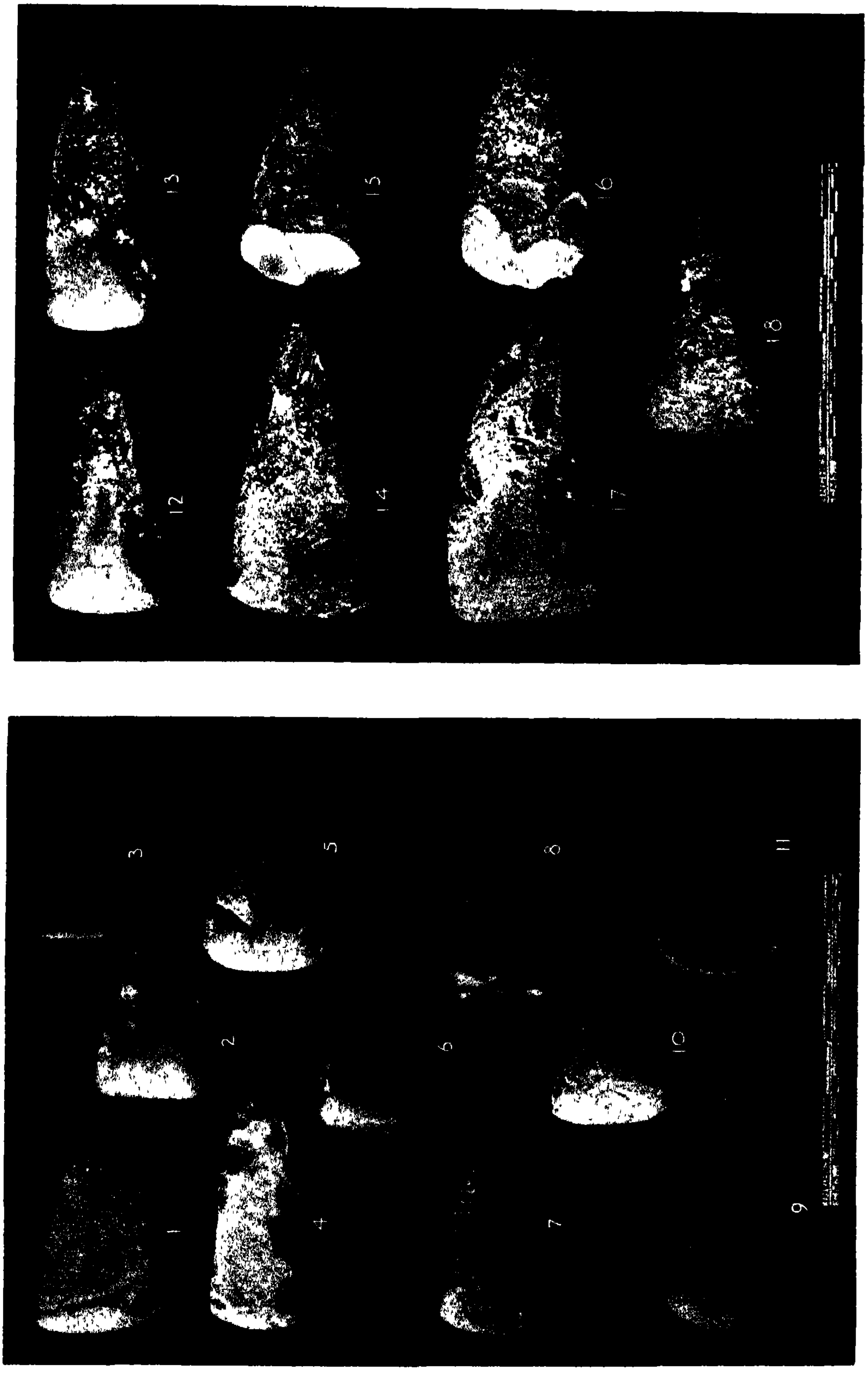
Type V (one example): Beaked graver (*burin*). Variant V*a* (one example) has a squared base.

Type VI (two examples): Chisel-ended blade.

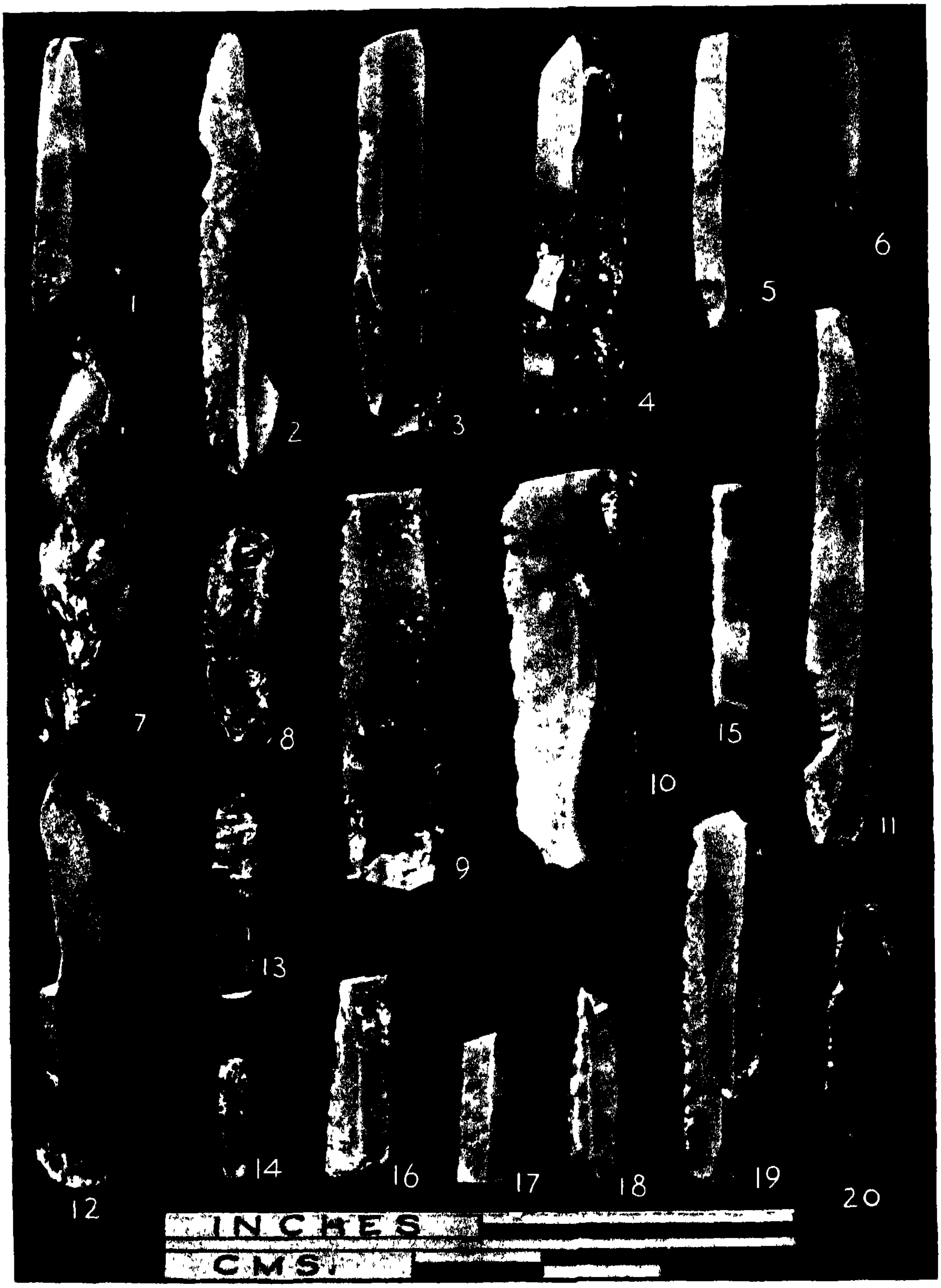
Type VII (four examples): Side-scrapers.

Of the hundred-and-two finished microliths, no fewer than eighty-nine were recovered from phases IA (nine) and IB (eighty) of the Brahmagiri Stone Axe culture. Only nine examples came from the Megalithic and four from the Āndhra layers. The use of microlithic implements was thus essentially a feature of the Stone Axe culture; their limited continuity into the Megalithic culture is consistent with the overlap of the two cultures (p. 200). The old specimens from the Āndhra layers may be discounted as strays.

[1] For the distribution of microlithic industries in India, see below, Appendix B, p. 299.
[2] Selected specimens were kindly examined by Dr. D. N. Wadia.



Brahmagiri: polished stone axes (1–17) and adze (18)



Brahmagiri. microliths from the town-site. Enlarged ²⁄₁

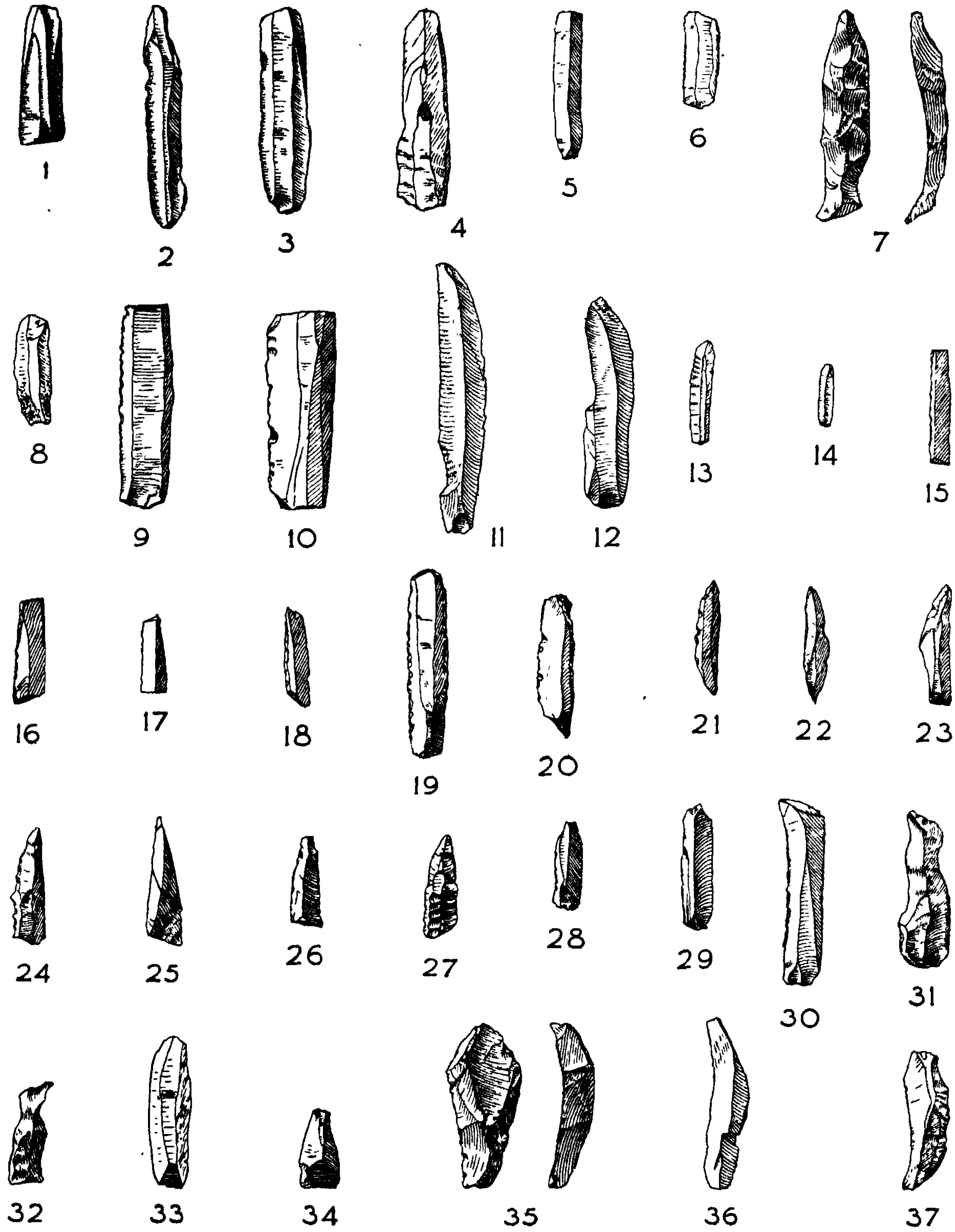


FIG. 34. *Microliths and flakes; Brahmagiri.* 1/1

The double-edged blade without retouch (Type I) was the commonest implement, accounting for about sixty per cent of the total number. It was manufactured principally in jasper although a few examples in carnelian, common opal and rock-crystal have also been obtained. Of the sixty-four complete specimens, six are from phase IA and fifty from phase IB of the Stone Axe culture, five from the Megalithic, and three from the Āndhra culture. One of these specimens (pl. CXIV, 7 and fig. 34, 7) is nicked for hafting and was obtained from a low level of the Megalithic culture. In assessing these figures, it is important to remember that only a relatively small area of the IA culture has been explored.

Of simple serrated blades (Type I*a*), only three specimens were obtained: one each from phases IA and IB (low level) of the Stone Axe culture and one from an early Megalithic layer. The technique of serration, though known since the earliest level of the site, was not widely applied. Of Type II*a* (serrated blade with battered back) only three examples were recovered, all from a low level in the IB culture. There is no sign of gloss, whether on the serrated or the un-serrated edges.

The bent blade (Type I*b*) is represented by seven examples, two in flint, two in jasper and three in rock-crystal. The bent end was presumably the active part of the implement, although in some cases at least the shape was purely accidental. The earliest example was obtained from a middle level of the IB culture.

Blades with a battered back (Types II and II*a*) are represented by nine examples, mostly from the early layers of the IB culture. The absence of battered blades from phase IA may, however, be accidental.

The only example of a crescentic blade (Type III) came from the base of the IB culture.

Points are represented by nine examples (Types IV-IV*h*) mostly from the middle and late levels of the IB culture. Of the two triangular points, however, one (Type IV*d*) was obtained from the IA culture and the other (Type IV*c*) from the base of the IB culture.

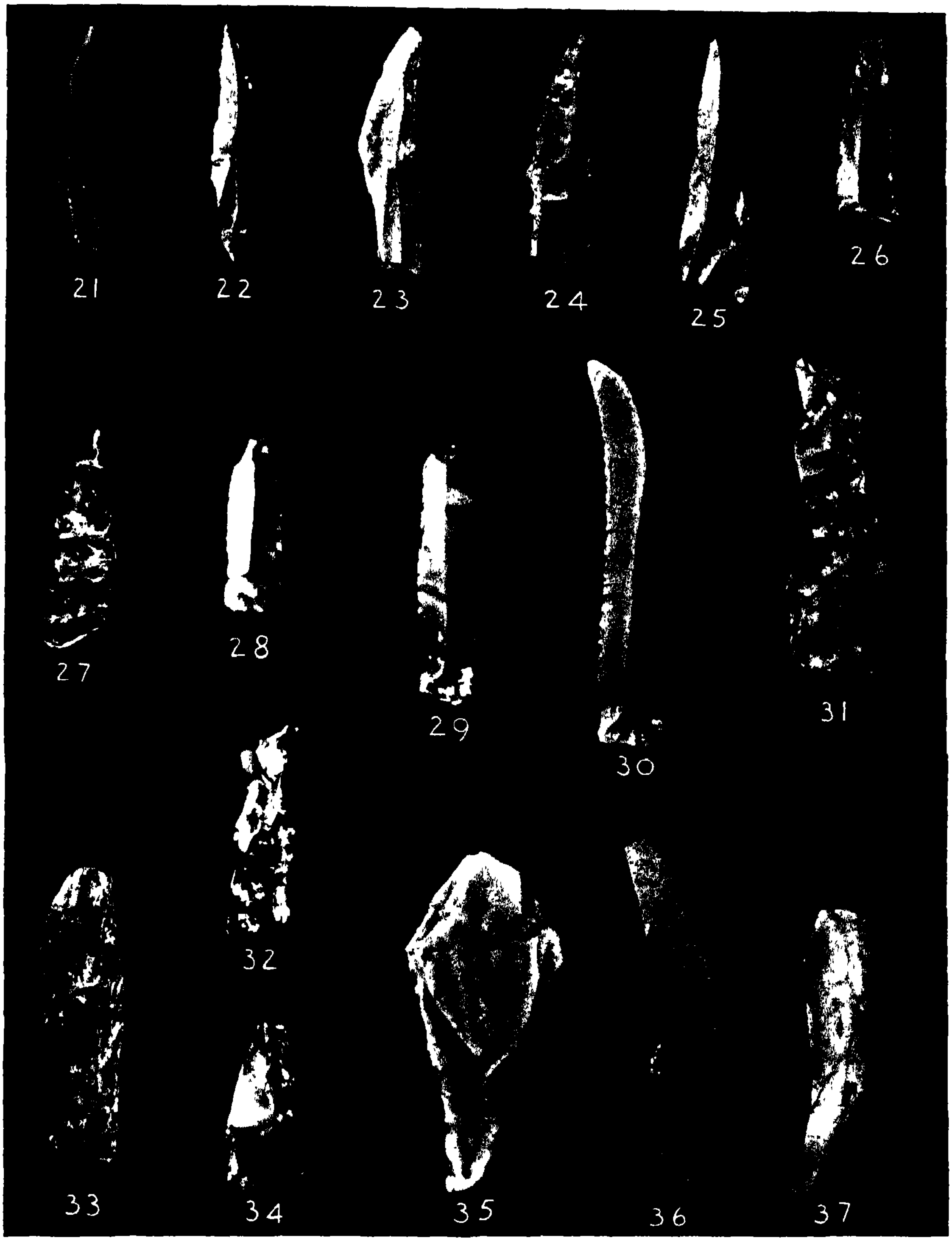
Beaked gravers (Types V and V*a*) are specialized implements and are rare. Both the finished examples (pl. CXV and fig. 34, 31 and 32) are in carnelian, and occur in the late levels of the IB culture.

Chisel-ended blades (Type VI) are also a specialized type, for which either carnelian or rock-crystal was used. The type occurs as early as the IA culture.

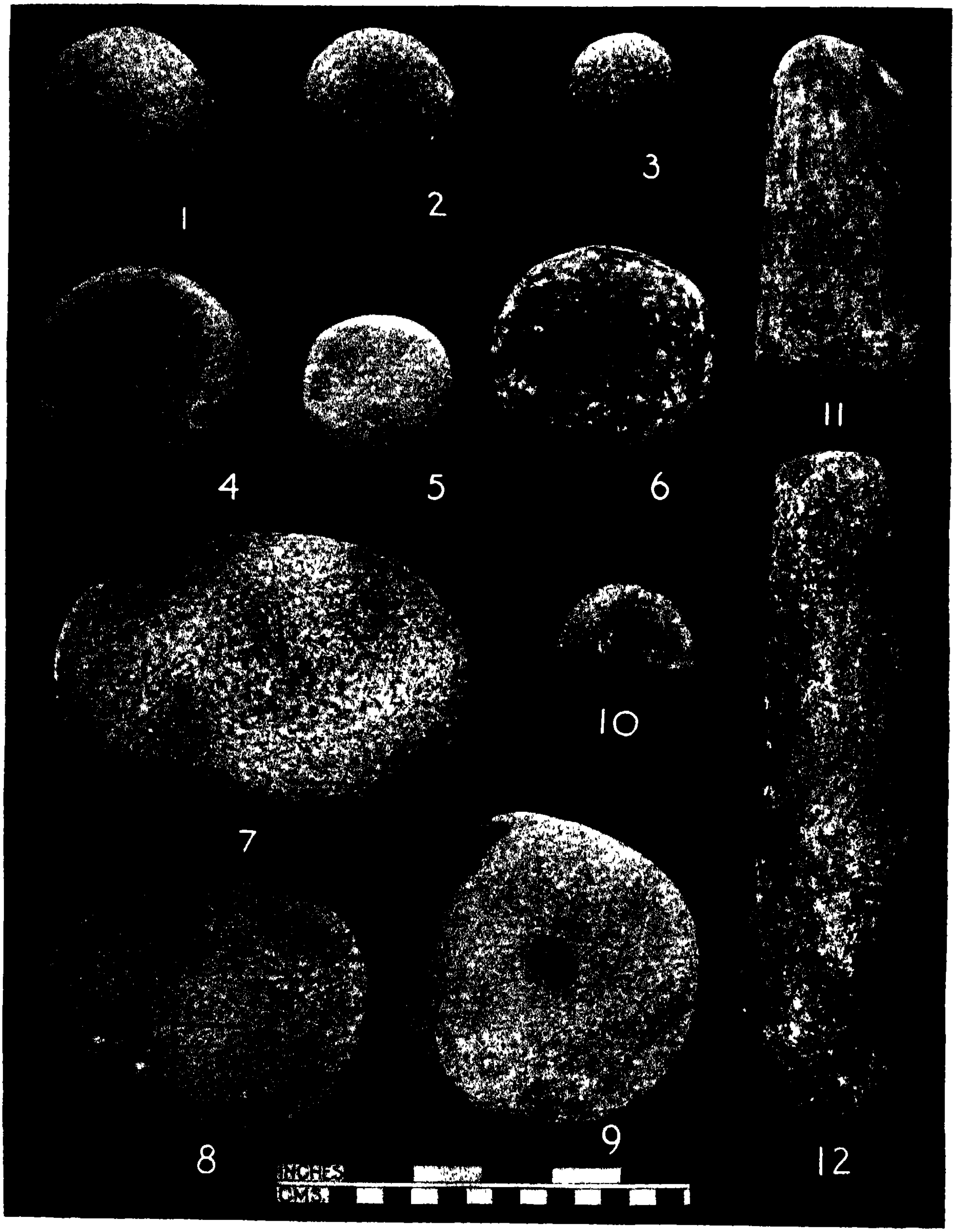
Side-scrapers (Type VII) have a slightly curved body which facilitates a grip with a thumb and fore-finger. These appear in the late levels of the IB culture (pl. CXV and fig. 34, 37).

Typical microliths (pls. CXIV-CXV and fig. 34)

1. Type I; jasper; from the IA culture. (Br. 22–266.)
2. Type I; jasper; from an early stratum of the IB culture. (Br. 17–93.)
3. Type I; jasper; from an early stratum of the IB culture. (Br. 17–88.)
4. Type I; agate; from a late stratum of the IB culture. (Br. 21–189.)
5. Type I; jasper; from a middle stratum of the IB culture. (Br. 22–287.)
6. Type I; common opal; from a late stratum of the IB culture. (Br. 21–163.)
7. Type I; agate; from an early stratum of the Megalithic culture. (Br. 21–270.)
8. Type I; rock-crystal; from an early stratum of the Megalithic culture. (Br. 22–210.)
9. Type I*a*; jasper; from an early stratum of the Megalithic culture. (Br. 21–109.)
10. Type I*a*; jasper; from the IA culture. (Br. 22–349.)
11. Type I*b*; flint; from a middle stratum of the IB culture. (Br. 21–228.)
12. Type I*b*; flint; from a late stratum of the IB culture. (Br. 21–225.)
13. Type I*b*; rock-crystal; from a late stratum of the IB culture. (Br. 21–224.)
14. Type I*b*; rock-crystal; from a late stratum of the IB culture. (Br. 21–118.)
15. Type II; jasper; from an early stratum of the IB culture. (Br. 22–638.)



Brahmagiri: microliths from the town-site. Enlarged ?/1



Brahmagiri: stone objects

16. Type II; jasper; from an early stratum of the IB culture. (Br. 22–663.)
17. Type II; jasper; from a late stratum of the IB culture. (Br. 21–91.)
18. Type II; jasper; from an early stratum of the IB culture. (Br. 22–620.)
19. Type II*a*; jasper; from an early stratum of the IB culture. (Br. 17–104B.)
20. Type II*a*; jasper; from an early stratum of the IB culture. (Br. 17–104.)
21. Type III; flint; from an early stratum of the IB culture. (Br. 22–581.)
22. Type IV; blood jasper; from a late stratum of the IB culture. (Br. 21–157.)
23. Type IV*a*; flint; from a late stratum of the IB culture. (Br. 21–170.)
24. Type IV*b*; jasper; from a late stratum of the IB culture. (Br. 21–107.)
25. Type IV*c*; jasper; from an early stratum of the IB culture. (Br. 22–582.)
26. Type IV*d*; agate; from the IA culture. (Br. 22–661.)
27. Type IV*e*; rock-crystal; from an early stratum of the Megalithic culture. (Br. 22–214.)
28. Type IV*f*; jasper; from a late stratum of the IB culture. (Br. 21–123.)
29. Type IV*g*; agate; from a late stratum of the IB culture. (Br. 21–153.)
30. Type IV*h*; jasper; from a late stratum of the IB culture. (Br. 21–167.)
31. Type V; carnelian; from a late stratum of the IB culture. (Br. 21–74.)
32. Type V*a*; carnelian; from a late stratum of the IB culture. (Br. 21–199.)
33. Type VI; rock-crystal, from an early stratum of the Megalithic culture. (Br. 22–172.)
34. Type VI; carnelian; from the IA culture. (Br. 22–651.)
35. Type VII, agate; from an early stratum of the Āndhra culture. (Br. 21–29.)
36. Type VII; common opal; from a late stratum of the IB culture. (Br. 21–254.)
37. Type VII; common opal; from a late stratum of the IB culture. (Br. 21–185.)

(*k*) *Other stone objects* (pls. CXVI and CXVII)

No stone objects were found in the megalithic cists, but a pit-circle, Megalith II, produced a granite pestle (pl. CXVI, 12).

On the town-site, the sub-phase IA of the Stone Axe culture yielded a saddle-quern, three rubbers and a stone ball, while the sub-phase IB produced a saddle-quern, two rubbers, eight flat oval discs and two spherical and thirteen spheroid balls. From the Megalith levels were obtained two rubbers and one spherical and eight spheroid balls. In the Āndhra strata were found two rubbers, two flat oval discs, four spherical and four spheroid balls, a pestle, and a small cylindrical object of uncertain use, with a cylindrical perforation at the centre (no. 10 below).

The use to which the spherical and spheroid balls were put cannot be determined with certainty. The spheroids, flattened at the base and top, were presumably used for rubbing, and the spheres perhaps represent unused examples. Their varying bulk rules out their use as weights. The use of the flat oval discs is still less certain; the presence of a small cup-like depression near the centre of one side of no. 9 may represent an incompleted boring.

Pl. CXVI

1. Ball; granite. From an early stratum of the IB culture. (Br. 17–41.)
2. Ball; granite. From a Megalith level. (Br. 22–472.)
3. Ball; Trap-rock. From a middle stratum of the Āndhra culture. (Br. 22–51.)
4. Spheroid ball, flattened at the base and top; Trap-rock. From a middle stratum of the IB culture (Br. 17–71.)
5. As no. 4; granite. From a Megalith level. (Br. 21–211.)
6. Rubber; Trap-rock. From a middle stratum of the Āndhra culture. (Br. 22–128.)
7. Flat oval disc; granite. From an early stratum of the IB culture. (Br. 22–658.)
8. Flat oval disc; granite. From a middle stratum of the IB culture. (Br. 17–21.)

9. Flat oval disc, with a small cup-like depression near the centre; broken; granite. From a late Āndhra level. (Br. 23–29.)
10. Cylindrical object, with cylindrical central perforation, 1¼ inches deep; use unknown (too massive for a spindle-whorl); Trap-rock. From an Āndhra pit. (Br. 23–16.)
11. Pestle; granite. From an early Āndhra level. (Br. 22–365.)
12. Pestle; granite. From a pit-circle. (Br. Meg. II–13.)

Pl. CXVII

13. Saddle-quern, broken; granite. From the IA culture. (Br. 17–48.)
14. Another fragment of a saddle-quern; granite. From a middle stratum of the IB culture. (Br. 22–540.)
15. Rubber, with a plano-convex section; granite. From the IA culture. (Br. 17–30.)

(*l*) *Iron objects*

The megalithic cists and pit-circles produced a large number of iron objects, all in a very bad state of preservation. In most cases it was necessary to prepare the drawings *in situ*, and for this purpose sheets of glass (generally old photographic plates) were used, the procedure being to clean the glass with methylated spirit and then to trace the object on to it in ink.

The pit-circles were notably richer than the cists in iron objects, and might contain as many as nineteen (Megalith VII), in contrast to a maximum of eight in the cists (Megalith VIII). The objects from the pit-circles comprised seven tanged knives or daggers, four wedge-like blades, four chisels, two sickles, two lances, a sword, a barbed arrow-head, a thin dish-like object, a fragmentary ring with two nails affixed to it, a chopper-like object with a long handle, and three spears, 5½-6½ feet long, with flat elongated blade and round (iron) shaft constricted towards the butt and having a terminal knob (fig. 35), besides twenty fragmentary and highly decayed objects which could not be identified. The objects from the cists included six tanged knives or daggers, a fragmentary chisel, an axe with a detached ring round the butt-end, and two featureless bars 1½-2¾ feet long (not illustrated), in addition to half-a-dozen unidentified fragments.

Two fragmentary knives or daggers were found associated with Megalith pottery on a floor preceding the construction of Megalith VI (cist).

On the town-site, the Stone Axe levels produced no iron objects. Those from the Megalith levels include four nails and an arrow-head. The Āndhra levels yielded three tanged knives, two sickles, a boring-tool, two hooks, eight nails, and an indeterminate object with cogged edge.

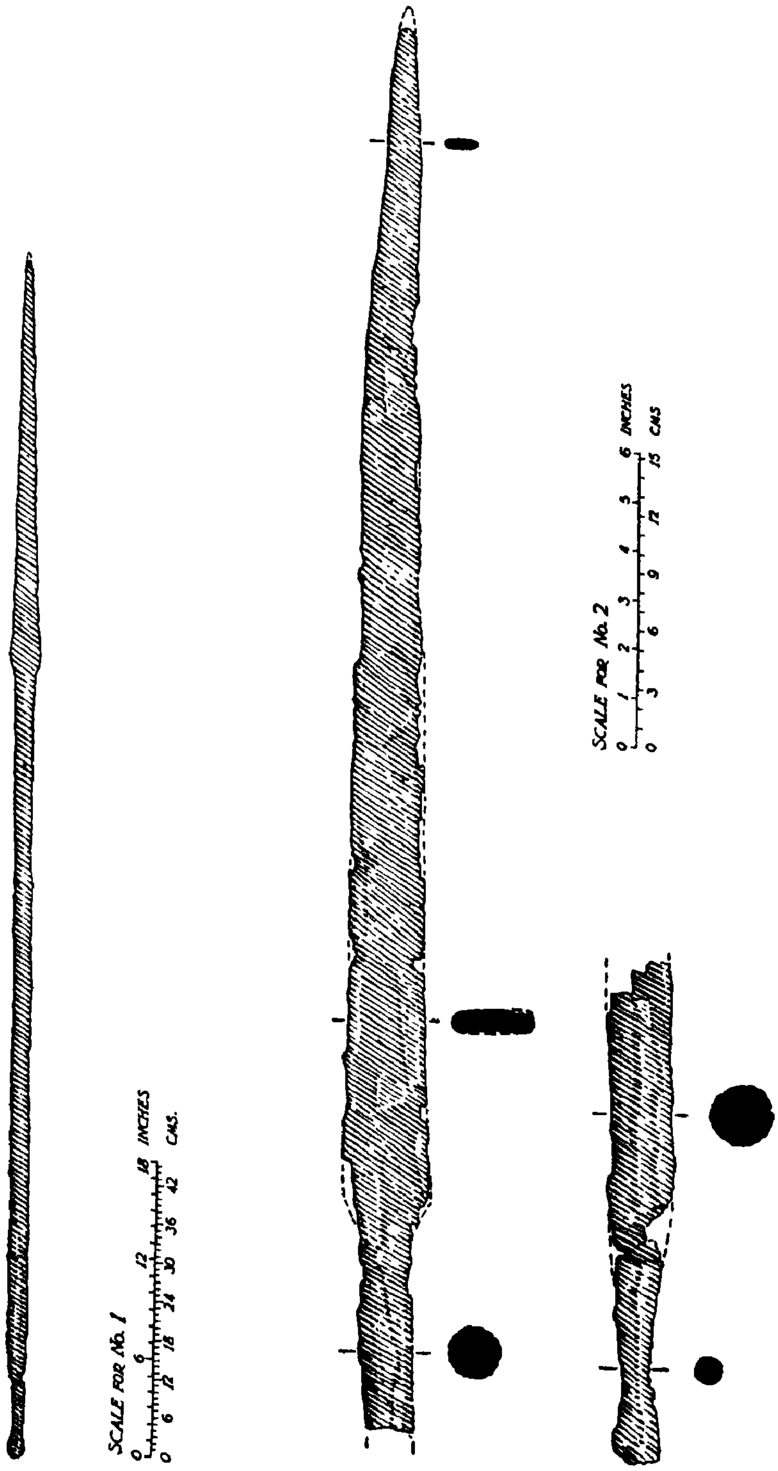
Below are described typical iron objects from: (i) the floor associated with Megalith pottery but preceding the construction of Megalith VI (cist); (ii) the cists; (iii) the pit-circles; and (iv) the 'Megalith' and 'Āndhra' levels of the town-site.

(i) *From the 'Megalith' floor preceding the construction of Megalith VI (cist)*

Fig. 36

1. Tanged knife or dagger, broken. (Br. Meg. VI, RA.) Tanged knives and daggers have been obtained from the burial-urns at Ādichanallur in Tinnevelly district, Madras Presidency[1]; from the cairns north

[1] Alexander Rea, *Catalogue of Prehistoric Antiquities from Ādichanallur and Perumbair* (Madras Government Museum, 1915), p. 17, nos. 120 and 153, pl. IV, fig. 2 and 7.



1 2

FIG. 35. *Iron spear from Brahmagiri pit-circle, Megalith VII: 1, the complete implement; 2, larger detail of blade and butt*

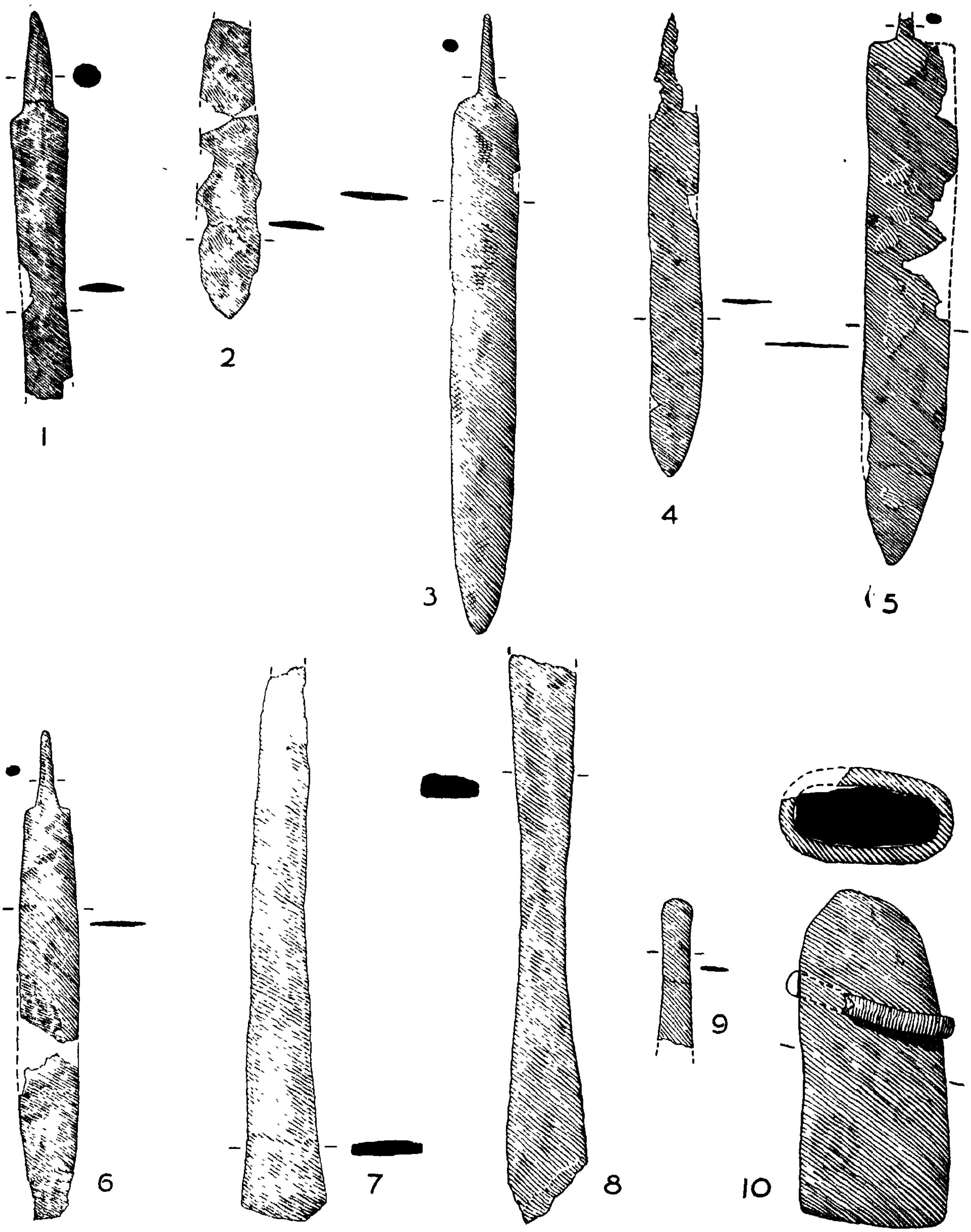


FIG. 36. *Iron objects of the Megalithic culture, Brahmagiri.* $\frac{1}{3}$

of Tarnatmand in the Nilgiri Hills [1]; and from the urns at Kil Mondambadi, near Shevaroy Hills, Salem district, Madras Presidency.[2]

2. Fragmentary blade of a knife or dagger. (Br. Meg. VI, RB.)

(ii) *From the cists*

Fig. 36

3. Tanged knife or dagger. (Br. Meg. VIII, R4.)
4. Fragmentary blade of a knife or dagger. (Br. Meg. VIII, R3.)
5. Tanged knife or dagger. (Br. Meg. VI, R1.)
6. Two fragments of a tanged knife or dagger. (Br. Meg. VI, R2 and R3.)
7. Bar of indeterminate shape and use, with oblong section. (Br. Meg. VI, R4.)
8. Similar to no. 7. (Br. Meg. VIII, R2.)
9. Fragment of a chisel; see nos. 25-26 below. (Br. Meg. VIII, R5.)
10. Blade (axe?) with a detached ring round the butt-end, presumably for affixing to a split wooden handle. (Br. Meg. I, RI.) An example of this type with a similar ring was obtained from a burial-urn at Kil Mondambadi, near the Shevaroy Hills.[3] Other examples, also with rings, come from the burial-urns at Ādichanallur, Tinnevelly district.[4]

(iii) *From the pit-circles*

Fig. 37

11. Tanged knife or dagger with unusually thin section. (Br. Meg. II, R9.)
12. Tanged knife or dagger. (Br. Meg. IX, R1.)
13. Tanged knife or dagger. (Br. Meg. VII, R1.)
14. Tanged knife or dagger with lenticular section. (Br. Meg. VII, R13.)
15. Tanged knife or dagger with V-shaped end and flanged shoulders. (Br. Meg. VII, R9.) The V-shaped end is deliberate, not a break.
16. Tanged knife or dagger; unusually small. (Br. Meg. VII, R4.)
17. Fragmentary blade of a knife or dagger. (Br. Meg. VII, R2.)

18–20. Bars of indeterminate use, oblong in section. (Br. Meg. VII, R19; Br. Meg. IX, R6; and Br. Meg. II, R14 respectively.)

Fig. 38

21–24. Blades, probably wedges. (Br. Meg. II, R13; Br. Meg. VII, R12; Br. Meg. IX, R5; and Br. Meg. II, R15 respectively.) These blades resemble the iron wedges used today for levering up granite slabs after loosening them by means of fire (above, p. 187). Similar blades have been obtained from the cists at Jala, 17 miles north-north-east of Bangalore [5]; and from the stone-circles (which contained pyriform burial-urns and pottery-cists) at Perumbair, Chingleput district, Madras.[6]

25-26. Chisels, respectively flat and plano-convex in section. (Br. Meg. II, R11A and R11B respectively.) Similar chisels have been obtained from Ādichanallur.[7] They may have been used for cutting leather.

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[1] R. Bruce Foote, *Catalogue of the Prehistoric Antiquities* (Government Museum, Madras, 1901), p. 76, pl. XVII, nos. 870 and 874.

[2] R. Bruce Foote, *Indian Prehistoric and Protohistoric Antiquities: Notes on their Ages and Distribution* (Government Museum, Madras, 1916), pp. 61-62, pl. 51.

[3] Ibid., pp. 61-62, pl. 50.

[4] Rea, op. cit., p. 18, nos. 223 and 235, pl. IV, figs. 17 and 20.

[5] Bruce Foote (1901), p. 118, pl. XXXI, no. 1274.

[6] Rea, op. cit., p. 45, no. 127, pl. XI, fig. 13.

[7] Ibid., p. 14, no. 13, pl. III, fig. 6.

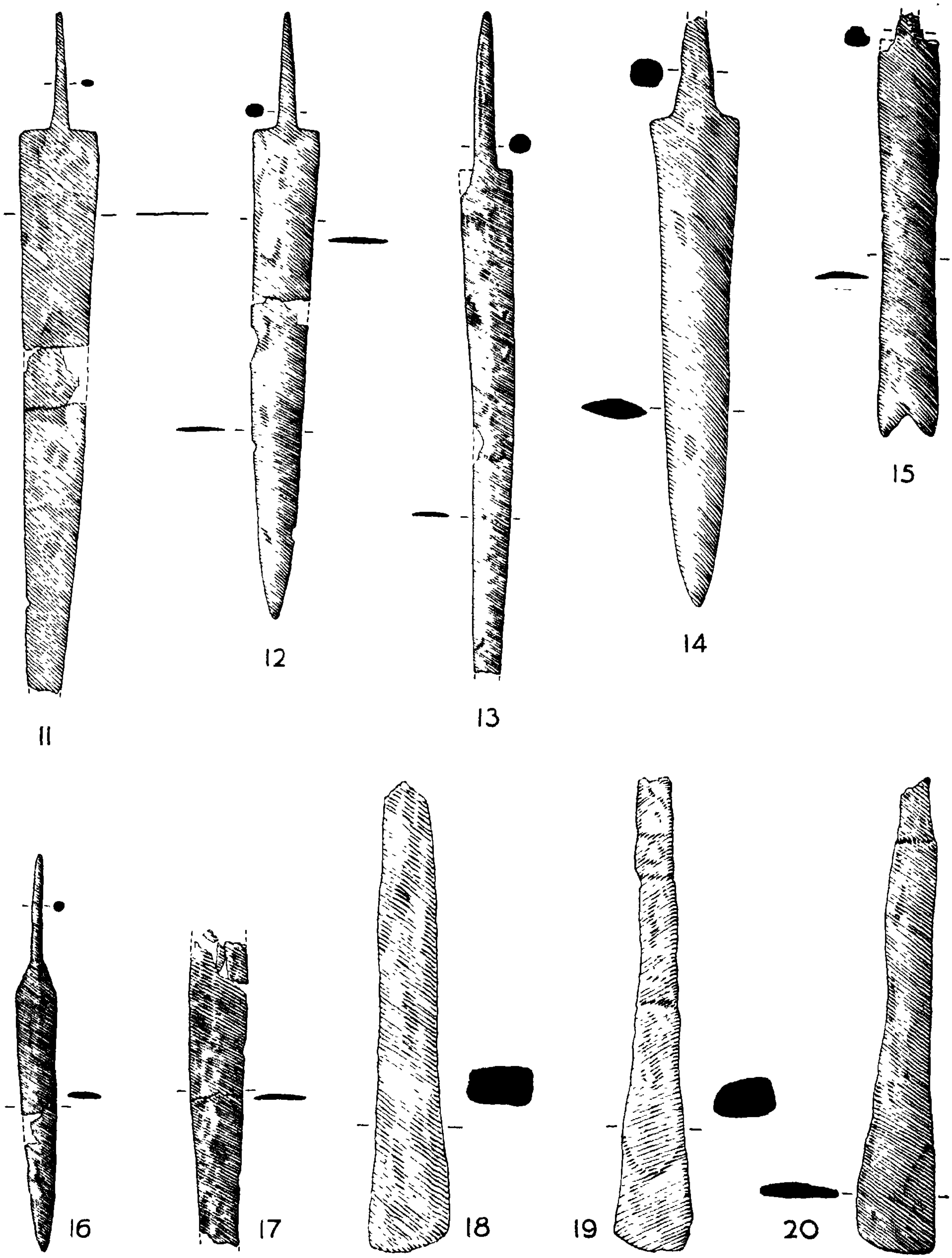


FIG. 37. *Iron objects of the Megalithic culture, Brahmagiri.* $\frac{1}{3}$

17B

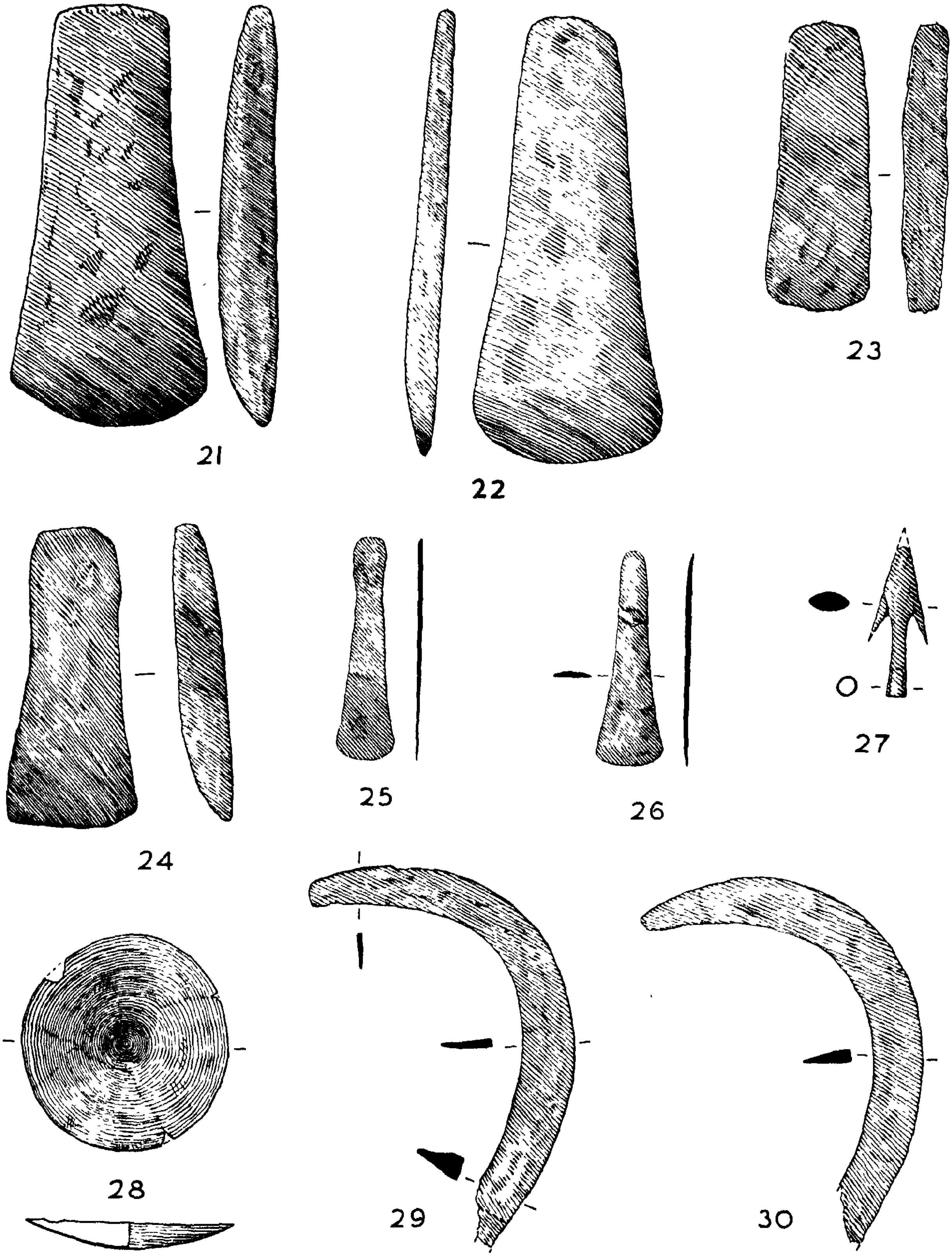


FIG. 38. *Iron objects of the Megalithic culture, Brahmagiri.* $\frac{1}{3}$

27. Barbed arrow-head, socketed. (Br. Meg. II, R3.) Similar arrow-heads have been found in the cists at Savandrug, 22 miles west-south-west of Bangalore, Mysore State [1]; at Ādichanallur [2]; and in the burial-urns at Patpād, Kurnool district.[3]
28. Thin, shallow dish-like object. (Br. Meg. VII, R18.)
29-30. Sickles, tangs broken. (Br. Meg. II, R16, and Br. Meg. VII, R14, respectively.) Sickles have been obtained from the cairns at Hillava Kunde Hill, Nilgiri Hills [4]; and from the burial-urns at Ādichanallur [5] and Perumbair.[6]

Fig. 39

31. Lance with blade lenticular in section. (Br. Meg. IX, R4.)
32. Lance, rougher in shape than no. 31. (Br. Meg. VII, R8.)
33. Bar with squarish section narrowing towards one end; use indeterminate. (Br. Meg. VII, R16.)
34. A unique chopper-like object, with long handle, sharp blade, and hooked end. No analogies are forthcoming. (Br. Meg. II, R8.)
35. Large fragmentary ring with two nails affixed; use uncertain. (Br. Meg. VII, R5.)
36. Sword; point and part of tang missing. (Br. Meg. II, R1.) Swords of various sizes and shapes have been obtained from Ādichanallur.[7]

(iv) *From the town-site*

Fig. 40

37. Arrow-head, bent. From a 'Megalith' stratum. (Br. 22–549.)
38. Thin nail or pin. From a 'Megalith' stratum. (Br. 22–199.)
39. Nail, square in section. From a 'Megalith' stratum. (Br. 22–181.)
40. Nail. From an early stratum of the Āndhra culture. (Br. 22–374.)
41. Nail. From a middle stratum of the Āndhra culture. (Br. 22–76.)
42. Hook. From a middle stratum of the Āndhra culture. (Br. 21–144.)
43. Hook. From a late stratum of the Āndhra culture. (Br. 21–3.)
44. Tanged knife. From an early stratum of the Āndhra culture. (Br. 16A–65.)
45. Fragment of a tanged knife. From an early stratum of the Āndhra culture. (Br. 22–343.)
46. Fragmentary knife-blade. From an early stratum of the Āndhra culture. (Br. 16B-1.)
47. Borer with conical tang. From a middle stratum of the Āndhra culture. (Br. 22–37.)
48. Sickle. From a middle stratum of the Āndhra culture. (Br. 22A-3.)
49. Sickle. From an early stratum of the Āndhra culture. (Br. 22–54.)
50. Tube, of uncertain use. From a middle stratum of the Āndhra culture. (Br. 22-28.)
51. Indeterminate object with saw-like edge. From a middle stratum of the Āndhra culture. (Br. 22–338.)

(m) Bangles and rings

The megalithic cists produced no bangles or rings, but four plain copper bangles were found in one of the pit-circles, Megalith IX (above, p. 199). Of fifty-four bangles from the town-site, none came from Phase I (Stone Axe culture), one fragmentary shell bangle was of Phase II (Megalithic), and the remainder, variously of shell, clay, bone, glass, bronze

[1] Bruce Foote (1901), p. 124, pl. XXIX, nos. 1333–38.
[2] Rea, op. cit., p. 15, no. 60, pl. II, fig. 13; and p. 17, no. 152, pl. IV, fig. 6.
[3] Bruce Foote (1916), p. 222, pl. 49.
[4] Bruce Foote (1901), p. 78, pl. XVI, nos. 880 and 881.
[5] Rea, op. cit., p. 17, nos. 167-168, pl. IV, figs. 8 and 10.
[6] Ibid., p. 45, no. 128, pl. XI, fig. 14.
[7] Rea, op. cit., pl. III, fig. 16; pl. IV, fig. 21; and pl. V, figs. 1–4 and 15.

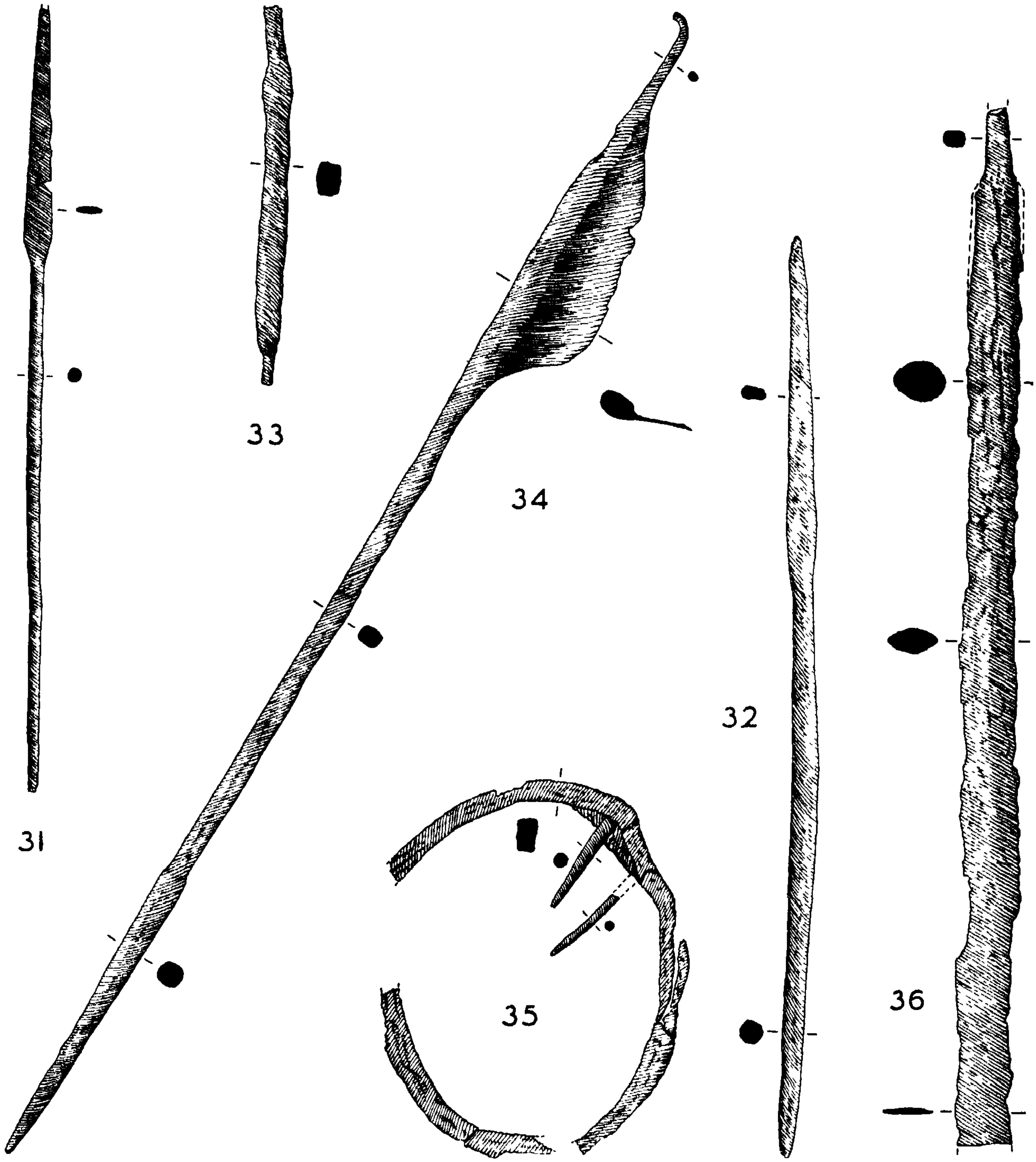


FIG. 39. *Iron objects of the Megalithic culture, Brahmagiri.* ¼

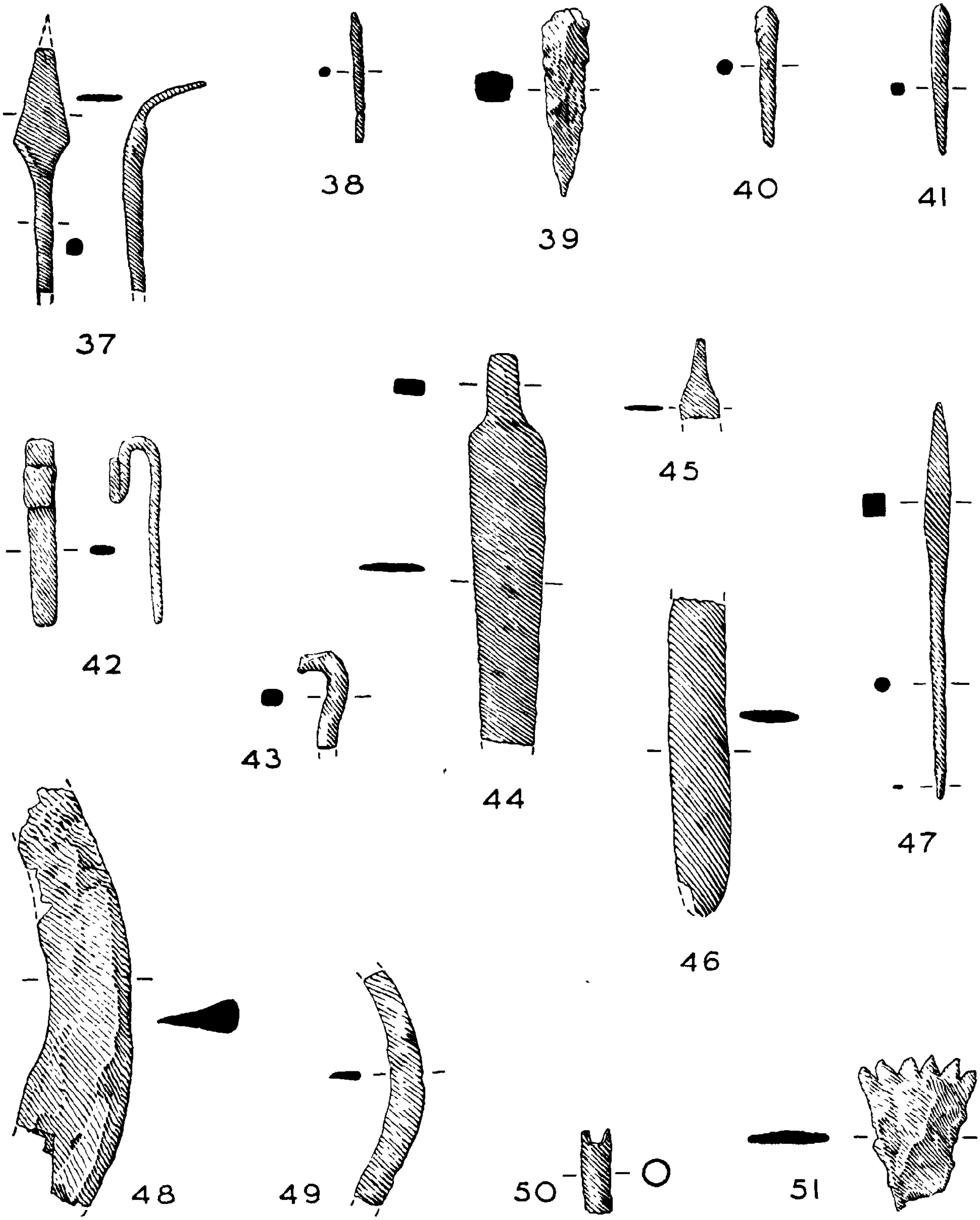
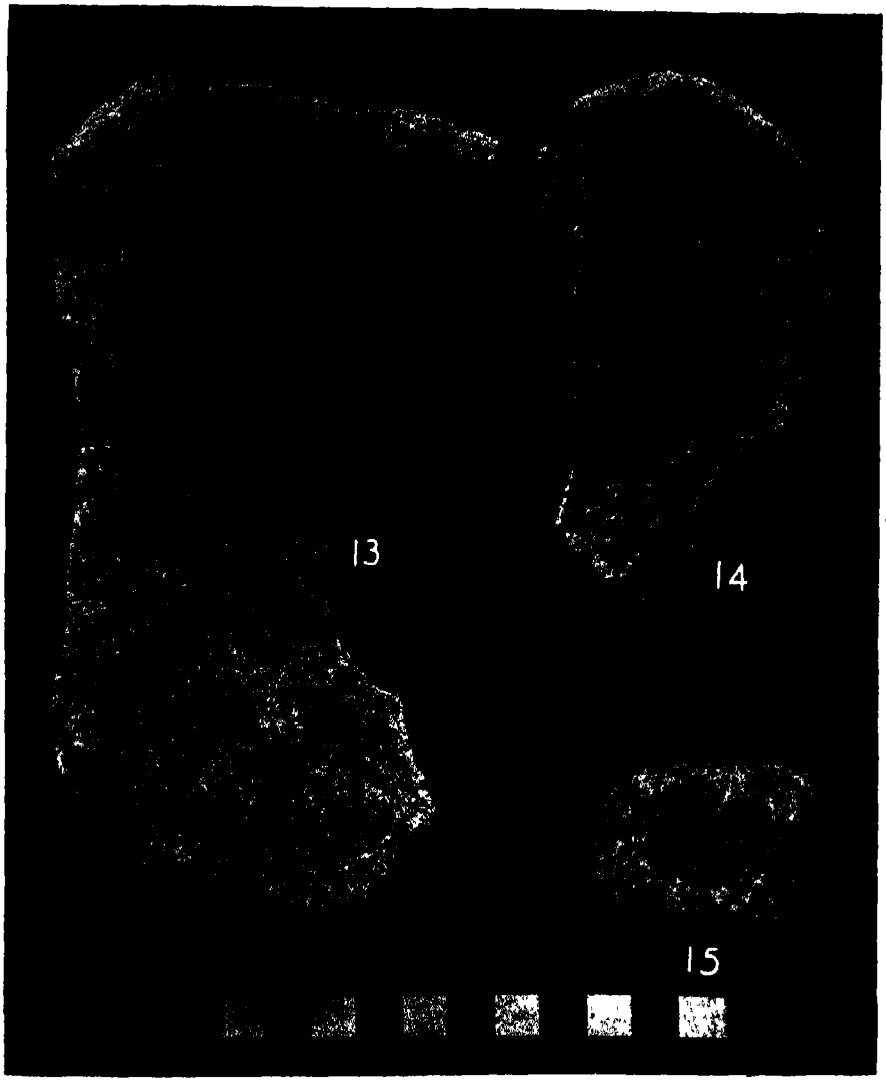
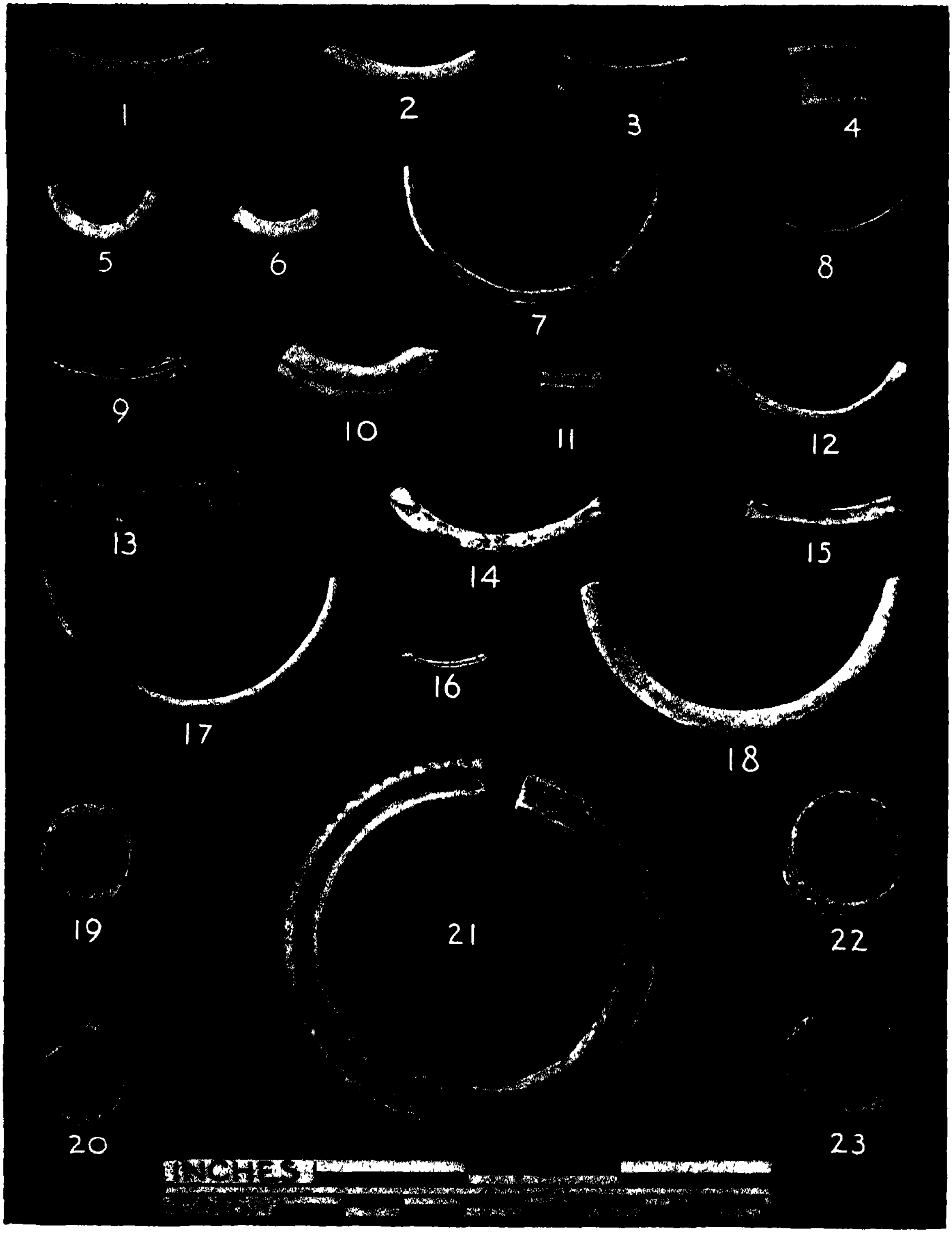


FIG. 40. *Iron objects from Brahmagiri : 37–39, Megalithic culture ; 40–51, Āndhra culture.* ½



Brahmagiri: saddle-querns and rubber



Brahmagiri: bangles and rings

and gold, were derived from Phase III (Āndhra). The abundance of glass in the Āndhra series is noteworthy. I know of no good evidence for the regular use of glass bangles in India prior to the first century A.D., although glass beads occur freely at earlier dates—perhaps as early as the fifth century B.C. at Taxila, Punjab—and I see no reason why future excavations should not carry back the initial date of the bangles also.

The earliest finger-ring from Brahmagiri is of plain bronze from a late Phase IB (Stone Axe) level. None came from the Megalithic levels, but five—three of bronze and two of shell—were found in the Āndhra levels. Of these, one is of the spiral type which occurs in widely different times and places—extending from Mohenjo-daro in the third millennium B.C. to Transcaucasia in the first millennium B.C. and Early Iron Age Europe of the first centuries B.C.–A.D., and indeed to modern India. But the distribution of so unspecialized a type has obviously no significance.

Pl. CXVIII

Bangles and rings from the town-site

1. Fragment of a shell bangle, oblong in section. From a middle stratum of the Megalith culture. (Br. 21A-3.)
2. Fragment of shell bangle, plano-convex in section. From an early stratum of the Āndhra culture. (Br. 22–122.)
3. Fragment of a flat shell bangle. From an early stratum of the Āndhra culture. (Br. 22–291.)
4. Fragment of a shell bangle, plano-concave in section, with out-turned edges. From a middle stratum of the Āndhra culture. (Br. 23-1.)

5-6. Fragments of shell finger-rings, oblong in section. From an early stratum of the Āndhra culture. (Br. 22–161 and Br. 22–114 respectively.)

7-8. Fragmentary bangles of black glass, plano-convex in section. From low levels of the Āndhra culture. (Br. 22–427 and Br. 21–148 respectively.)

9. Fragmentary bangle of black glass, plano-convex in section, with three grooves along the circumference. Unstratified. (Br. 23–11.)

10-11. Fragmentary bangles of stratified glass (a slip of yellow on grey). From middle levels of the Āndhra culture. (Br. 21–77 and Br. 21–96 respectively.)

12. Fragmentary bangle of sky-blue, translucent glass, plano-convex in section. From a late stratum of the Āndhra culture. (Br. 22-12.)
13. Fragmentary bangle of light green, translucent glass, triangular in section. From a late stratum of the Āndhra culture. (Br. 23-6.)
14. Fragmentary bangle of vitrified clay, plano-convex in section. From a late stratum of the Āndhra culture. (Br. 22-2.)
15. Fragment of a bone bangle, oblong in section. From a middle stratum of the Āndhra culture. (Br. 22–45.)
16. Fragment of a gold wire, ·075 inch in thickness, presumably part of a bangle. From a low stratum of the Āndhra culture. (Br. 16A–9.)

17-18. Fragmentary bronze bangles, plano-convex and oval respectively in section. From late levels of the Āndhra culture. (Br. 21–7 and Br. 23–7 respectively.)

19. Bronze finger-ring, plano-convex in section. From a late stratum of the IB culture. (Br. 22–702.) See also fig. 41, 4.
20. Finger-ring of a thin strip of bronze. From a middle stratum of the Āndhra culture. (Br. 21-121.)
21. Bronze bracelet, with indented edge. From a middle stratum of the Āndhra culture. (Br. 22–35.) See also fig. 41, 8.
22. Spiral ring of bronze. From a middle stratum of the Āndhra culture. (Br. 22–117.) See also fig. 41, 7.
23. Bronze ring, roughly circular in section. From a late stratum of the Āndhra culture. (Br. 23–9.)

Pl. CI B and fig. 41

Pl. CI B shows the four copper bangles (fig. 41, 6) lying in association with splinters of human bone, beads of gold, steatite and serpentine, and a conch-shell in the pit-circle, Megalith IX.

(n) *Beads*

(i) *From the cists*

Of the six cists excavated in 1947, three (nos. IV, VI and VIII) yielded beads.

From Megalith IV were obtained thirty-nine tiny white beads of the mineral magnesite or dolomite.[1] They are similar to minute beads found at Chanhu-daro and described as of 'steatite'.[2] They lay closely scattered amidst pots and iron objects and formed a part of the offerings placed in the cist prior to the insertion of the bones. The types represented are: standard-cylinder-circular, standard-barrel-circular, short-cylinder-circular and short-barrel-circular.[3]

In Megalith VI were found two terracotta ring-like beads which may rather have been spindle-whorls.

From Megalith VIII were recovered forty-four tiny white beads of magnesite, of types similar to those from Megalith IV, together with four tiny standard-barrel-circular beads of the same material but of a light green colour. All these lay in a shallow dish.

The length and diameter of some of these tiny beads are: ·013 × ·035; ·021 × ·037; and ·051 × ·055 inches respectively.

(ii) *From the pit-circles*

Two (nos. II and IX) out of the four pit-circles opened yielded beads.

From Megalith II were obtained two terracotta beads or whorls (pl. CXIX, 5) similar to those from Megalith VI (above).

From Megalith IX were recovered one steatite, one serpentine and thirty-three gold beads, all of which lay closely scattered in association with four copper bangles, a conch shell and two splinters of human bone (above p. 199 and pls. CXIX, 3-4, and CXX B). The two steatite and serpentine beads were respectively of standard-barrel-circular and long-barrel-circular type. Of the thirty-three gold beads, thirty are long-cylinder-circular, while three are disc-cylinder-circular.

(iii) *From the town-site*

The cuttings (Br. 17–Br. 23) on the town-site yielded a total of seventy-seven beads of magnesite, shell, terracotta, agate, carnelian, glass, jasper and steatite, together with a solitary shell pendant. The number is fairly low, even in view of the limited nature of the excavations: the complete absence of cores and unfinished beads indicates that on the sites excavated there was no bead-manufacturing industry.

Magnesite is the material of the largest number (twenty-one). Of these, twelve were obtained from various levels of the IB culture (especially towards its middle and late levels), three from the Megalithic and six from the Āndhra levels. The commonest shape in this material is the disc-cylinder-circular type (pl. CIX, 7-9) of which nine specimens were

[1] Report from Dr. Jhingram, Petrologist in the Geological Survey of India.

[2] E. J. H. Mackay, *Chanhu-daro Excavations, 1935-36* (American Oriental Society, New Haven, 1943), p. 42 and pl. XCIII, 5.

[3] The classification is that of H. Beck in *Archaeologia*, LXXVII (1928), 1ff.

recovered. Of other forms, the short-cylinder-circular is represented by three beads (pl. CXIX, 13), and the short-convex-bicone-circular type (pl. CXIX, 19) and long-cylinder-oblate (pl. CXIX, 25) by one each. The remaining seven beads are tiny (the length and diameter of some of these being ·05 × ·015 inches and ·066 × ·133 inches respectively) and represent the following shapes: disc-barrel-circular; short-barrel-circular; short-truncated-cone-circular; short-truncated-bicone-circular and short-truncated-convex-bicone-circular.

Shell, which comes next to paste in order of frequency, is the material of seventeen beads and a pendant. They are distributed as follows: eleven from the various levels of the IB culture, one from the Megalithic and five from the Āndhra culture. The pendant, which has a long cylindrical profile with a rectangular stump at one end and a rectangular cross-section (pl. CXIX, 35), was recovered from a late Āndhra layer, and may have been an intrusion. Shell, like magnesite, was a favourite bead-material in the IB culture, and the commonest shape again was the disc-cylinder-circular (pl. CXIX, 11), of which eight specimens were recovered. The other shapes in this material are: short-barrel-circular (pl. CXIX, 15); long-barrel-circular (pl. CXIX, 27); short-cylinder-circular (pl. CXIX, 14); and long-ellipsoid-circular (pl. CXIX, 30). Three shells, longitudinally perforated to form a bead (pl. CXIX, 36) were also found. The practice of using longitudinally-perforated small shells as beads continues today in many parts of India.

Terracotta, unlike magnesite and shell, appeared very late at Brahmagiri as a bead-material. It seems to have been absent from both the IA and IB phases of the Stone Axe culture, except for two standard-barrel-circular beads (pl. CXX, 38) from the late levels of the IB. The Megalithic levels, too, produced only two terracotta beads, while the Āndhra levels yielded thirteen. All these beads are well-baked and four of them have a thin black burnished slip. Five are long-barrel-circular (pl. CXX, 39) and one is spherical (pl. CXX, 37). Four pear-shaped beads with a truncated apex (pl. CXX, 42-3) have been obtained from the Āndhra levels: there is none from the earlier cultures. Pear-shaped beads without any truncation of the apex but with the addition of two grooves near the rounded base (pl. CXX, 44) are represented by three specimens, again from the Āndhra levels. Of whorl-beads (pl. CXX, 40-1), four examples were obtained, two each from the Megalithic and Āndhra levels.

Of *agate*, two varieties, banded-black and banded-red, were used: these account for three and four beads respectively. The shapes represented are: long-barrel-circular (pl. CXIX, 28); standard-cylinder-circular (pl. CXIX, 24); long-cylinder-circular (pl. CXIX, 26); and spheroid (pl. CXIX, 20). Except for this last-mentioned spheroid bead from phase IA of the Stone Axe culture, all the agate beads came from Āndhra levels.

Carnelian is the material of five beads, of which two are spherical (pl. CXIX, 21) and one each is long-bicone-hexagonal (pl. CXIX, 32), long-bicone-septagonal (pl. CXIX, 33), and short-barrel-circular (pl. CXIX, 16). Like the agate beads the carnelian examples are confined to the Āndhra levels.

Glass was used for five beads, all from the Āndhra levels. These include: two short-barrel-circular beads (pl. CXIX, 17), one each of deep and light-green translucent glass; one short-oblate-circular (pl. CXIX, 18) of green opaque glass, one spheroid (pl. CXIX, 22) of sky-blue opaque glass, and one long-barrel-groove-collared (pl. CXIX, 34) of deep green opaque glass.

Collared beads have a very wide distribution in time and space, both in India and elsewhere.[1] The Indian sites known to yield collared beads are: Arikamedu,[2] near Pondicherry

[1] See *Ancient India*, no. 2 (1946), p. 97.

[2] Ibid., pp. 97-98.

(from pre-Arretine, Arretine, and post-Arretine strata, first century A.D.); Koṇḍāpur, and Māski in Hyderabad State (from strata reported to be of the Āndhra period); Śiśupāl near Bhubaneshwar in Orissa; Pāṭaliputra in Bihar; Durgāpur in Bengal; Kauśāmbī near Allahabad in the United Provinces; Bhīr Mound and Sirkap at Taxila in the Punjab (*c.* third century B.C. to second century A.D.); and Chandravalli. Outside India, the type occurs at Dura-Europos on the Euphrates apparently late in the first century B.C.,[1] and further west at earlier dates.[2]

Of *jasper*, only two beads were recovered: one, spheroid in shape (pl. CXIX, 23), from a middle stratum of the Āndhra culture, and the other, long-barrel-circular in shape (pl. CXIX, 29), from a middle Megalithic level.

Steatite was used for three beads. One of these, long-bicone-circular in form (pl. CXIX, 31), was obtained from an early stratum of the Megalithic culture; another, *ghaṭa*-shaped (pl. CXX, 45), came from a late Āndhra level. The material in the third case is indurated steatite, and the example—a disc with central hubs on both sides (pl. CXIX, 12)—was recovered from an early Megalithic level.

Typical beads

(i) *From the pit-circles*

Pl. CXX B

1. Disc-cylinder-circular; gold. (Br. Megalith IX-11.)
2. Long-cylinder-circular; gold. (Br. Megalith IX-11.)

Pl. CXIX

3. Standard-barrel-circular; steatite. (Br. Megalith IX-18.)
4. Long-barrel-circular; serpentine. (Br. Megalith IX-20.)
5. Whorl-bead; terracotta. (Br. Megalith II-23.)

(ii) *From the cist-circles*

6. Whorl-bead; terracotta. (Br. Megalith VI-18.)

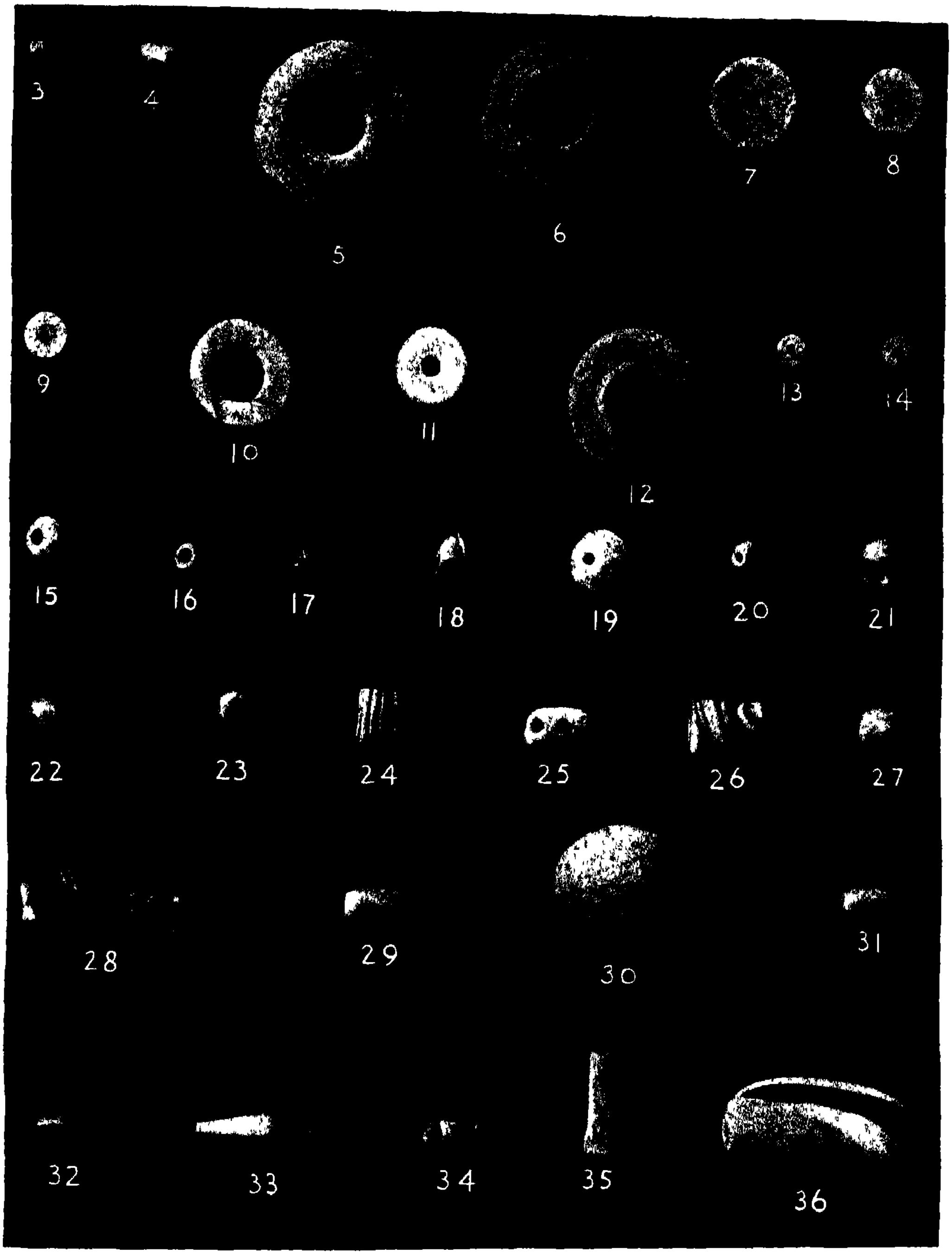
(iii) *From the town-site*

7. Disc-cylinder-circular; magnesite; from an early stratum of the Megalith culture. (Br. 21–40.)
8. Disc-cylinder-circular; magnesite; from a late stratum of the IB culture. (Br. 21–86.)
9. Disc-cylinder-circular; magnesite; from a late stratum of the IB culture. (Br. 21–86A.)
10. Disc-cylinder-circular; shell; from an early stratum of the Āndhra culture. (Br. 22–466.)
11. Disc-cylinder-circular; shell; from a middle stratum of the IB culture. (Br. 21–208.)
12. Disc with central hubs on both sides; indurated steatite from an early stratum of the Megalith culture. (Br. 21A–4.)
13. Short-cylinder-circular; magnesite; from an early stratum of the Megalith culture. (Br. 22–232.)
14. Short-cylinder-circular; shell; from a middle stratum of the IB culture. (Br. 17–61.)
15. Short-barrel-circular; shell; from a middle stratum of the IB culture. (Br. 22–571.)
16. Short-barrel-circular; carnelian; from a late stratum of the Āndhra culture. (Br. 21–14.)
17. Short-barrel-circular; glass, green, translucent; from a late stratum of the Āndhra culture. (Br. 22–105.)
18. Short-oblate-circular; glass, green, opaque; from a middle stratum of the Āndhra culture. (Br. 21–69.)
19. Short-convex-bicone; magnesite; from a late stratum of the IB culture. (Br. 21–155.)
20. Spheroid; agate, banded-black; from the IA culture. (Br. 22–650.)

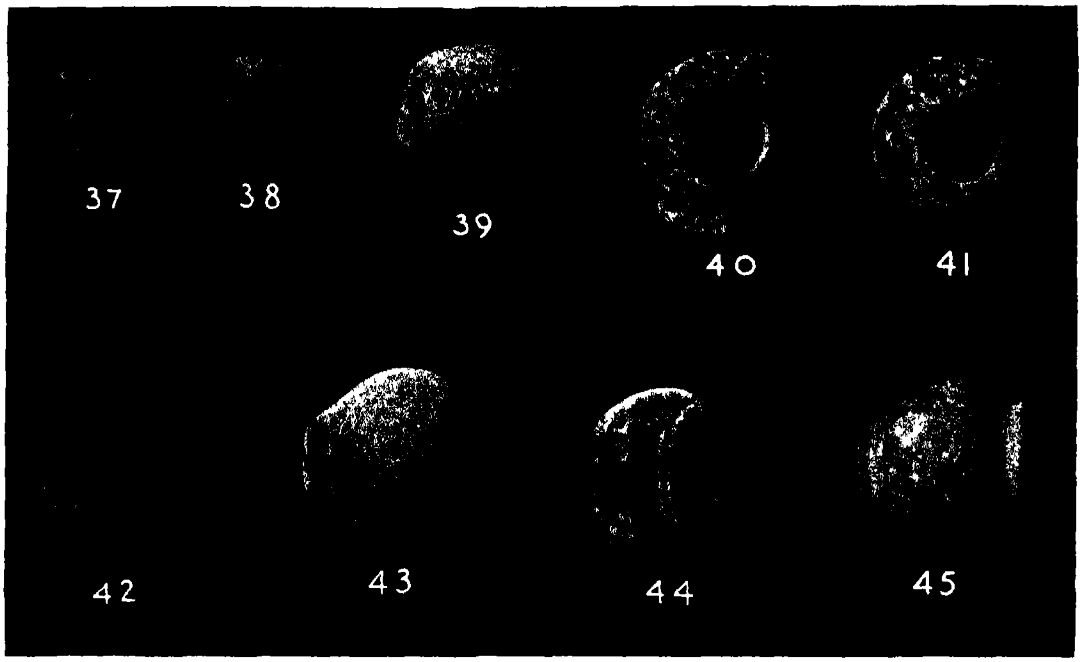
[1] *The Excavations at Dura-Europos, 9th session, 1935-6*: Part II, the *Necropolis*, by N. P. Toll (Yale University Press, 1946), pp. 15 and 70, and pl. LI, tomb 36, loculus XII. The same tomb contained a silver coin of Orodes II (51–38 B.C.).

[2] *Ancient India*, no. 2, p. 98.

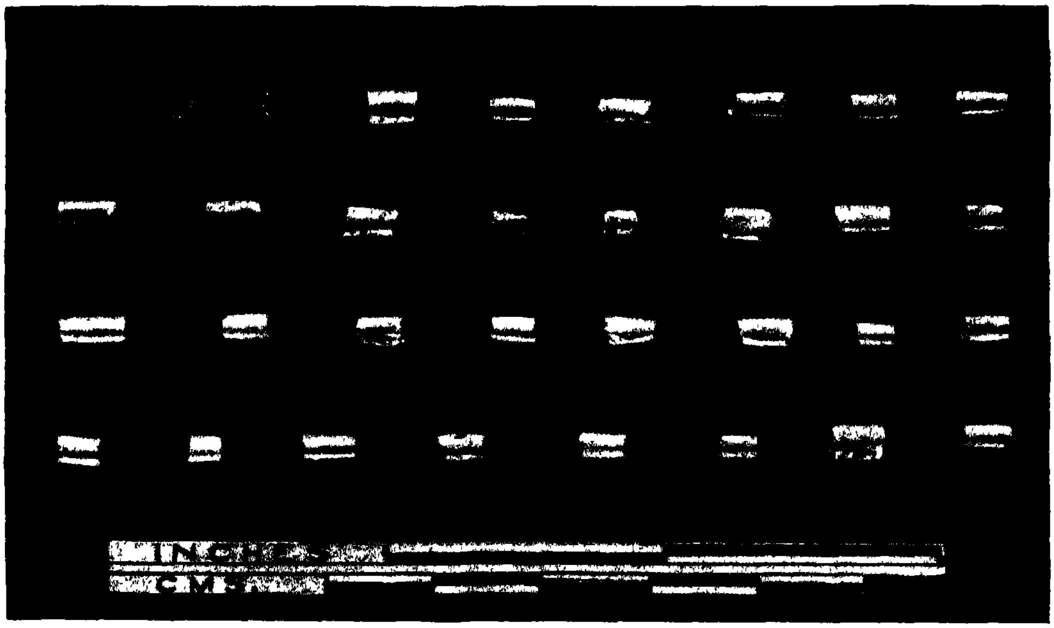
PLATE CXIX



Brahmagiri: beads. 1/1



A. *Brahmagiri: terracotta and stone beads.* $\frac{1}{1}$



B. *Brahmagiri: gold beads from megalith IX*

21. Spherical; carnelian; from a late stratum of the Āndhra culture. (Br. 22–15.)
22. Spheroid; glass, sky blue, opaque; from a late stratum of the Āndhra culture. (Br. 22–41.)
23. Spheroid; jasper from a middle stratum of the Āndhra culture. (Br. 22–112.)
24. Standard-cylinder-circular; agate, banded black; from an early stratum of the Āndhra cuture. (Br. 22–465.)
25. Long-cylinder-oblate; magnesite; from a late stratum of the Āndhra culture. (Br. 22–17.)
26. Long-cylinder-circular, agate, banded red; from an early stratum of the Āndhra culture. (Br. 22–464.)
27. Long-barrel-circular; shell; from a late stratum of the Āndhra culture. (Br. 22–233.)
28. Long-barrel-circular; agate, banded black; from a middle stratum of the Āndhra culture. (Br. 21–20.)
29. Long-barrel-circular; jasper; from a middle stratum of the Megalithic culture. (Br. 22A-2.)
30. Long-ellipsoid-circular; shell; from a late stratum of the Āndhra culture. (Br. 22–120.)
31. Long-bicone-circular; steatite; from an early stratum of the Megalithic culture. (Br. 21–105.)
32. Long-bicone-hexagonal; carnelian; from a middle stratum of Āndhra culture. (Br. 22–118.)
33. Long-bicone-septagonal; carnelian; from a middle stratum of the Āndhra culture. (Br. 22–73.)
34. Long-barrel-groove-collared; glass, green, opaque; from a middle stratum of the Āndhra culture. (Br. 22–119.)
35. Pendant; shell; from a late stratum of the Āndhra culture. (Br. 22–113.)
36. Shell, longitudinally perforated to form a bead; from a late stratum of the IB culture. (Br. 19–6.)

Pl. CXX A

37. Spherical; terracotta; from an early stratum of the Āndhra culture. (Br. 19–5.)
38. Standard-barrel-circular; terracotta; from a late stratum of the IB culture. (Br. 19–5.)
39. Long-barrel-circular; terracotta; from a middle stratum of the Āndhra culture. (Br. 21–13.)
40. Whorl-bead; terracotta; from a late stratum of the Megalithic culture. (Br. 21–271.)
41. Whorl-bead; terracotta; from an early stratum of the Āndhra culture. (Br. 21–584.)
42. Short-pear-shaped with a truncated apex; terracotta; from a late stratum of the Āndhra culture. (Br. 18–2.)
43. Standard-pear-shaped with a truncated apex; terracotta; from a middle stratum of the Āndhra culture. (Br. 21–28.)
44. Standard-pear-shaped with two grooves near the base; terracotta; from a late stratum of the Āndhra culture. (Br. 22–226.)
45. *Ghaṭa*-shaped; steatite; from a late stratum of the Āndhra culture. (Br. 22–152.)

(*o*) *Miscellanea*

Fig. 41

This figure illustrates copper and bronze objects and a button of steatite. Nos. 1–5 are from the IB (Stone Axe) culture; no. 6 is from a pit-circle, Megalith II; and nos. 7–10 are from Āndhra levels.

1. Bronze rod,[1] probably a pin, with circular section thinning towards one end. From inside burial-urn T36 in Br. 21, in an early stratum of the IB culture; see section, fig. 8. (Br. 21–282.)
2. Copper rod,[2] original shape uncertain but roughly circular in section. From a middle stratum of the IB culture. (Br. 17–80.)
3. Copper object,[3] possibly a flat axe; the presumed cutting edge is obscured by incrustation. From a middle stratum of the IB culture. (Br. 21–121.)

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[1] Archaeological Chemist's analysis; copper 47%, tin 9·0%, iron 1·05%, oxidation products 44·48%.

[2] Analysis: copper 94·13%, oxidation products 5·87%.

[3] Analysis: copper 44·87%, iron 1·37%, contaminated silica 51·40%.

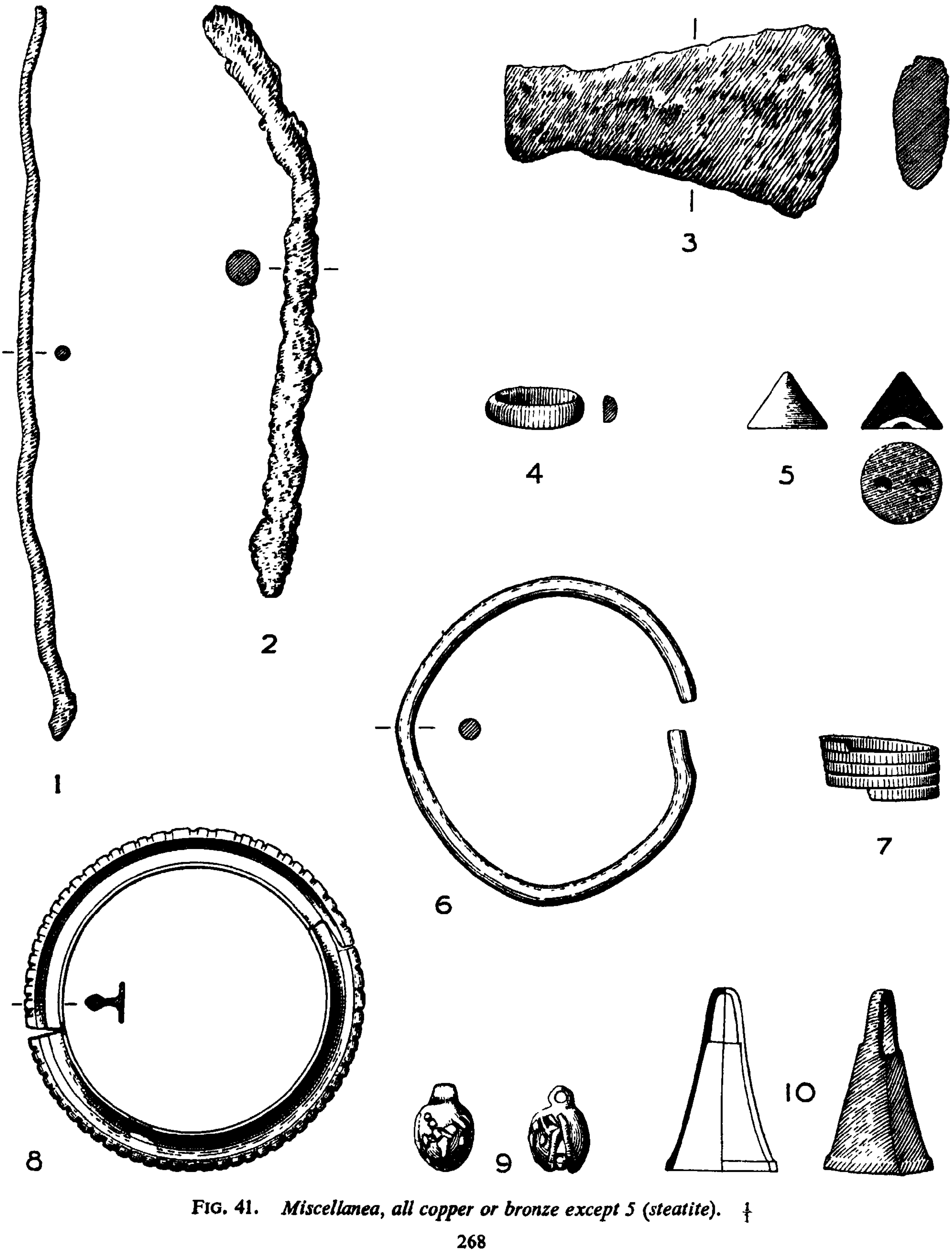
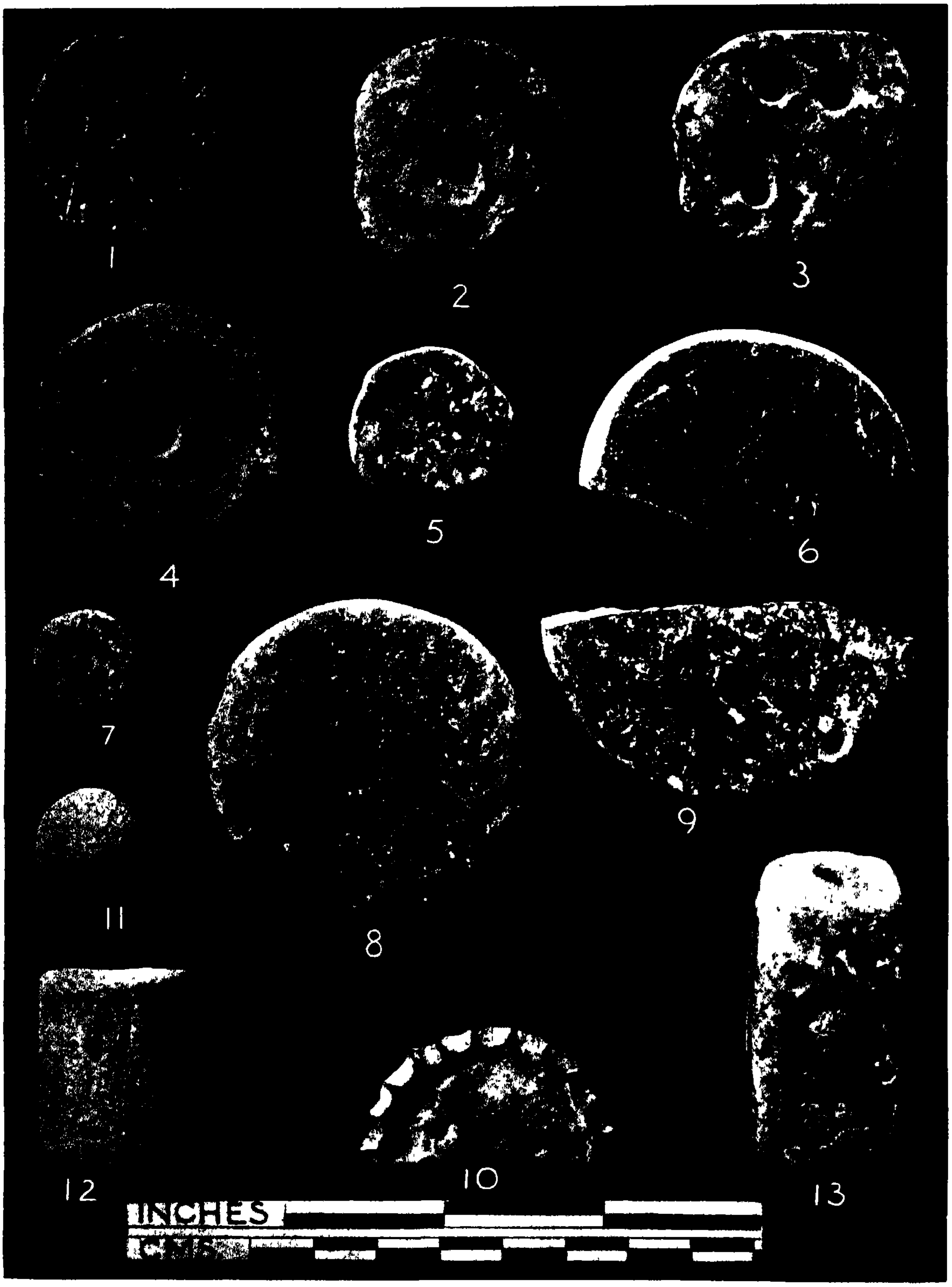


FIG. 41. *Miscellanea, all copper or bronze except 5 (steatite).* 1/1



Brahmagiri: clay objects. ½

To face page 269



Brahmagiri: clay objects from the town-site

4. Bronze finger-ring.[1] From a late stratum of the IB culture. (Br. 22–702.) See also pl. CXVIII, 19.
5. Conical button of steatite, with V-shaped perforation. From an early stratum of the IB culture. Conical buttons with a similar V-shaped perforation occur in the Bronze Age in the West, but no analogy seems to be forthcoming from India. (Br. 21–279.)
6. Copper bangle,[2] circular in section. From a pit-circle. (Br. Megalith IX, 23.) See also pl. CI B.
7. Spiral ring of bronze. From a middle stratum of the Āndhra culture. (Br. 22–117.) See above, p. 263, and pl. CXVIII, 22.
8. Bronze bracelet, with indented edge. From a middle stratum of the Āndhra culture. (Br. 22–35.) See also pl. CXVIII, 21.
9. Bronze rattle, with decoration in low relief resembling a grotesque face. From a late stratum of the Āndhra culture. (Br. 21–94.)
10. Bronze bell, pyramidal with loop. From an early stratum of the Āndhra culture. (Br. 22–157.)

Pl. CXXI

No terracotta figurines were found in the cists or pit-circles or in the 'Megalith' strata of the town-site. An unbaked animal figurine was recovered from the 'Stone Axe' layers, and a terracotta object ornamented with a row of elephants from the 'Āndhra' layers. No human figurines were obtained.

(1) Roughly modelled animal (pig or sheep?): sun-dried. From an early stratum of the IB culture. (Br. 21–258.)
(2) Fragment of a lid-like (?) object with a frieze of elephants on the exterior: well baked. From a middle stratum of the Āndhra culture. (Br. 20–7.)
(3) Roughly modelled animal, probably a horse or donkey; eyes indicated by pellets; ears mutilated; tail uncertain: indifferently baked. Unstratified. (Br. 23–4.)

Pl. CXXII

In addition to the terracotta figurines described above, the town-site yielded thirty-six discs made mostly from potsherds, a terracotta 'marble', a truncated terracotta cone (gaming piece?), and a perforated cubical terracotta object of indeterminate use. Of the discs, one was obtained from the upper levels of the IB culture, two from the Megalith culture, and the rest from the Āndhra culture. The absence of such discs from the IA culture may, however, be accidental. When pierced, these discs were presumably spindle-whorls; the unpierced examples were doubtless gaming-counters.

1. Spindle-whorl, incompletely pierced, made from a grey potsherd. From a late stratum of the IB culture. (Br. 17–10.)
2. Spindle-whorl of grey ware with buff surface. From a low stratum of the Megalith culture. (Br. 21–285.)
3. Disc with three perforations, made from a grey sherd with buff surface. From a middle stratum of the Megalith culture. (Br. 22–522.)
4. Spindle-whorl made from a sherd of reddish ware with red-brown slip. From an upper stratum of the Āndhra culture. (Br. 18–6.)
5. Counter of grey ware with red-brown slip. From a low stratum of the Āndhra culture. (Br. 22–407.)
6. Part of counter of reddish ware with red slip. From an early stratum of the Āndhra culture. (Br. 22–641.)
7. Counter of grey ware with red-brown slip. From a low stratum of the Āndhra culture. (Br. 22–167.)

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[1] Analysis: copper 98·7%, traces of nickel; oxidation products 1·3%.
[2] Analysis: copper 74·69%, tin 15·81%, zinc 2·72%, nickel 0·38%; oxidation products 6·40%.

8. Disc with incised herring-bone decoration, of buff ware with reddish slip. From an upper stratum of the Āndhra culture. (Br. 18–4.)
9. Part of a disc of grey ware, with a perforation near the circumference. From a late stratum of the Āndhra culture. (Br. 23–37.)
10. Disc of grey ware with finger-nail decoration round the edge. From a low stratum of the Āndhra culture. (Br. 22–158.)
11. 'Marble' of roughly baked buff fabric. From a low stratum of the Āndhra culture. (Br. 21–133.)
12. Truncated cone of grey fabric, presumably a gaming-piece. From a late stratum of the Āndhra culture. (Br. 21–10.)
13. Longitudinally perforated object of indeterminate use, square in section, made of grey-buff fabric with red-brown slip. From a low stratum of the Āndhra culture. (Br. 21–6.)

PART III.—CHANDRAVALLI

Chandravalli or Moon-village is the traditional name of a valley situated immediately west of the fortified granite hill of Chitradurga which in turn gives its name to the adjacent district-town of Chitaldrug. The site has long been known as a source of Sātavāhana (Āndhra) coins, and is a centre of legend and semi-legendary history. It has been described and mapped by Dr. M. H. Krishna, who, following trial-excavations carried out some twenty years previously, instituted a new series of excavations in 1929. A general description of these excavations has been issued [1] but the finds have not yet been published.

An examination of the sides of the two watercourses which traverse the valley from south to north indicates that the main body of the ancient town was some 800 yards long in that direction, and the configuration of the valley suggests that it may have had an approximately similar width. Evidences of occupation extend into the middle ages, but excavation has shown that the main phase coincided with the Sātavāhana régime of the first and second centuries A.D. Abundant coins which include one or two denarii of Augustus (23 B.C.–A.D. 14) and three of Tiberius (A.D. 14–37) suggested that, to a greater extent than Brahmagiri, the town had lain in the main path of Āndhra culture; and it was with a view to adding precision to our knowledge of this culture that three further trial-pits were dug into the site in 1947.

(i) THE CUTTINGS (1947)

The cuttings made in 1947 were named Ch. 43–Ch. 45, and were as follows:—

Ch. 43 lay immediately to the east of Dr. Krishna's excavation Ch. 15,[2] and consisted of an area 50 feet × 20 feet excavated to the natural soil. This was reached at an average depth of 9 feet below the surface, but took a sudden dip to a depth of 16 feet towards the south and south-west. This cutting yielded clear stratification and is the basis of the present report. Fragments of two structures were found, namely:

Drain A: An underground drain, 1 foot wide, flanked on either side by a single bricks set on edge, built into layer 7. It had no covering, but was traced to a length of only 2 feet.

Wall B: A line of bricks only one course high; traced to a maximum length of 6 feet. It was built on layer 6.

[1] 'Excavation at Chandravalli (Mysore State)', *Supplement to An. Rep. of the Mysore Arch. Dept. for the year 1929* (Bangalore, 1931).

[2] See map, ibid., pl. II.

Ch. 44 lay to the south-west of Dr. Krishna's site Ch. 37. It measured 20 feet by 20 feet and the natural soil was reached at an average depth of 6½ feet below the surface. No fewer than eight large pits so complicated the stratification as to rob the evidence of the precision required in the present state of knowledge. A collapsed brick wall lay on layer 7, and a fragmentary rubble foundation was found high up in level 2.

Ch. 45 lay adjacent to Dr. Krishna's site Ch. 36, and consisted of an area of 20 feet by 20 feet, which was excavated to the natural soil, reached at an average depth of 5½ feet below the surface. There are indications of early structures which require exploration.

(ii) The Chandravalli pottery

In the Chandravalli section Ch. 43, the lower levels yielded pottery turned on the slow wheel and of the distinctive red-and-black fabric of the Megalith culture at Brahmagiri. The similarity was reinforced by the occurrence of certain similar, if rather rudimentary, forms at both places, notably Brahmagiri types C7, C17a, and C18. Furthermore, in his excavations of 1928-29, Dr. Krishna found at Chandravalli a number of stone cists containing pottery of the same fabric, including tripod-pots and conical black lids comparable with the Brahmagiri types C25 and P3. A majority of the Ch. 43 types, however, were not closely represented at Brahmagiri, and the two industries are not identical. The difference extends to the cists on the two sites. No cist was found at Chandravalli in 1947, but, in the neighbourhood of the 'Central Rocks' at that site, Dr. Krishna found upwards of half-a-dozen, all of relatively small size (apparently not exceeding 3×2 feet and usually smaller) and lacking both the port-hole and the surrounding circle. These small cists were in a ruined condition, and only one produced a human skeleton, which was found 'partly crushed............with head to west and hip to east with the limbs bent double over the body'.[1]

It is evident that in the lower levels of Chandravalli we have a culture linked, though only vaguely, with the Megalith culture of Brahmagiri. Dr. Krishna's small-cists were not dated but the soil surrounding them contained Sātavāhana coins 'and even one of silver coming from the Roman Empire' (probably a denarius of Tiberius). On the other hand, no coin was found actually inside a cist, and no example of the distinctive 'Āndhra' painted ware occurred amongst the abundant cist-pottery. So far as it goes, the evidence suggests that the Chandravalli cists did not belong to the developed Āndhra culture at that site, but that they did not long precede it and in fact overlapped it.

With this inference the evidence of cutting Ch. 43 is consistent (fig. 42). The lowest stratum in this fairly extensive cutting contained only pottery of the 'megalithic' fabric, with neither coins nor painted sherds. Overlying this was a stratum again containing much 'megalithic' ware, but now in association with Āndhra fabrics, including both the typical painted ware and fragments of 'beaked' dishes of the type to which rouletted decoration is sometimes applied. No rouletted sherd was actually found in this stratum, but the type, with or without rouletting, appears to be securely dated to the first and second centuries A.D. A little higher up, rouletted sherds were found immediately above the highest of the 'megalithic' sherds. The latter were completely absent from the remaining strata of the section.

It is evident that the main features of the Āndhra culture were intrusive. They included the use of coinage, the introduction of glass bangles, the partial use of the fast potter's

[1] Ibid., pp. 16, etc., and pls. IX-X.

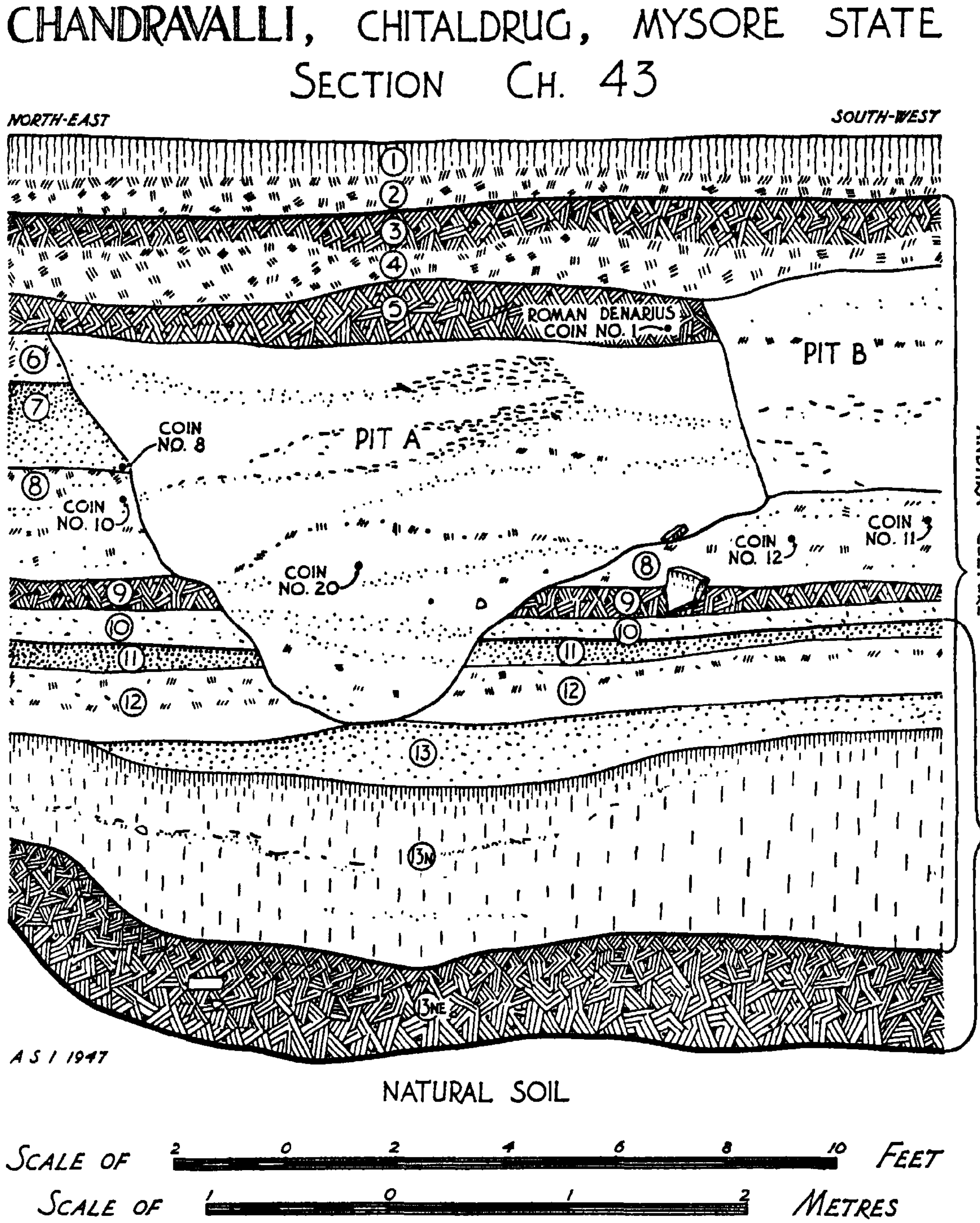


FIG. 42

wheel, and the manufacture of pottery painted in white or yellow lines under a russet-coloured slip. Occasional external contacts are represented by half-a-dozen Roman denarii of the first century A.D. and a small though definite fragment of a Mediterranean amphora (unstratified). The preceding local culture continued alongside the intruder for some time

Table showing the frequencies of sherds of the two cultures, layer by layer from top to bottom, in cutting Ch. 43 (fig. 42)

Layer	I. Megalithic	II. Āndhra
1	....	113, including 1 yellow-painted sherd
2	....	217, including 1 polished red-ware sherd
3	....	555, including 36 yellow-painted sherds
4	....	852, including 12 yellow-painted and 3 polished red-ware sherds
5	....	1,370, including 25 yellow-painted and 17 polished red-ware sherds
6	....	2,048, including 196 yellow-painted and 12 polished red-ware sherds
7	....	4,046, including 307 yellow-painted and 28 polished red-ware sherds
8	....	2,645, including 573 yellow-painted and 10 polished red-ware sherds
9	....	1,934, including 1 rouletted, 547 yellow-painted and 13 polished red-ware sherds
10	....	1,870, including 2 rouletted, 528 yellow-painted and 11 polished red-ware sherds
11	28	1,495, including 441 yellow-painted and 5 polished red-ware sherds
12	7	345, including 99 yellow-painted and 1 polished red-ware sherds
13	142	623, including 138 yellow-painted and 21 polished red-ware sherds
13N	654	455, including 18 yellow-painted sherds
13NE	25	....

but, apart from the adoption of a simple 'megalithic' bowl-type by the latter, there was little cultural interchange. The story at Chandravalli is in this respect similar to that at Brahmagiri.

Chronologically, the Chandravalli evidence lacks precision, but the 'beaked' dish referred to above is the characteristic form to which rouletted decoration is sometimes applied, and is unlikely to have appeared much earlier than the middle of the first century A.D. at this remote inland site. On that basis, the devolved 'megalithic' culture came to an end here in the latter part of that century, after lingering for several decades alongside the more sophisticated 'Āndhra' culture.

This provisional conclusion harmonizes with new and unpublished evidence from another site. In 1947 J. M. Casal carried out further excavations at Arikamedu

(Pondicherry), and at one point found pottery of the familiar 'megalithic' fabric in the layers immediately overlying the natural soil. The maximum over-all height of these 'megalithic' layers was 3 feet: the two lowest were free from admixture, but the two highest (1-1½ feet in thickness) produced also typical 'Arikamedu' pottery, including rouletted dishes. The overlap of the two cultures was clearly demonstrated, and the equation between this evidence and that of Chandravalli and Brahmagiri is in this respect absolute, with the proviso that, on the coastal site, the foreign rouletted decoration may be expected to have occurred somewhat earlier than in the hinterland of Mysore.

As in the case of Chandravalli, the identity of the fabric of the 'megalithic' ware of Arikamedu with that of Brahmagiri is only partially supported by similarities of form. Two or three of the Arikamedu types are found at Brahmagiri: notably, a conical black lid with loop-handle similar to Brahmagiri P2, and dishes and bowls similar to Brahmagiri C16 and C17. Specific resemblances between the Arikamedu and Chandravalli 'megalithic' types are slight and cannot be regarded as significant. Essential correspondence is there limited to fabric and chronological position. Incidentally no megaliths have yet been found at or near Arikamedu.

We thus appear to have three ceramic industries which share a distinctive fabric, have occasional types in common, and are partially synchronous, although the bulk of the Brahmagiri material must be of earlier date than that of the other two sites. For our present purpose, the principal result of this comparative sketch is to confirm the middle of the first century A.D. as the approximate terminal date for the so-called 'megalithic' fabric in three local manifestations, with a 'hang-over' extending into the latter part of the century. Fig. 42 illustrates a typical portion of cutting Ch. 43, and should be considered in relation to the table on p. 273, which classifies the potsherds from the whole cutting stratigraphically.

Chandravalli 'Megalithic' pottery

As already observed, the 'megalithic' ware of Chandravalli section Ch. 43 belongs to a well-defined class of predominantly black-and-red pottery. It is of a greyish buff fabric, is potted on a slow wheel, and has a burnished surface, occasionally with the addition of a salt glaze.[1] It is represented both in black and black-and-red ware, in the latter case usually with the black towards the rim as a result of inverted firing. As a whole, the finish of the Chandravalli 'megalithic' pottery is inferior to that of Brahmagiri. Furthermore, as noted above (p. 271), only occasional types are common to the two sites. Graffiti are entirely absent at Chandravalli but are abundant at Brahmagiri, mostly in the cists (p. 244). The only decoration on the Chandravalli 'megalithic' comprises: (*a*) incised herring-bone pattern and zigzags round the shoulder (type M22), and (*b*) oblique notches round the shoulder (type M13). The commonest type is the bowl (type M1), which continues into the Āndhra culture and constitutes one of the principal types to which the typical Āndhra criss-cross decoration was applied.

The following is a representative series of 'megalithic' pots and sherds from cutting Ch. 43, level 13N, the lowest level save one (figs. 43-44).[2]

M1. Straight-sided bowl of black-and-red ware, salt-glazed. It has a sharpened and slightly everted rim and a flat base. The type is represented also in black ware.

[1] Chemist's note. This feature was probably adopted from the intrusive 'Āndhra' industry, which used salt-glazing freely. Salt-glazing is completely absent from the 'megalithic' pottery at Brahmagiri.

[2] This and the following lists of Chandravalli sherds have been prepared by Mr. B. K. Thapar

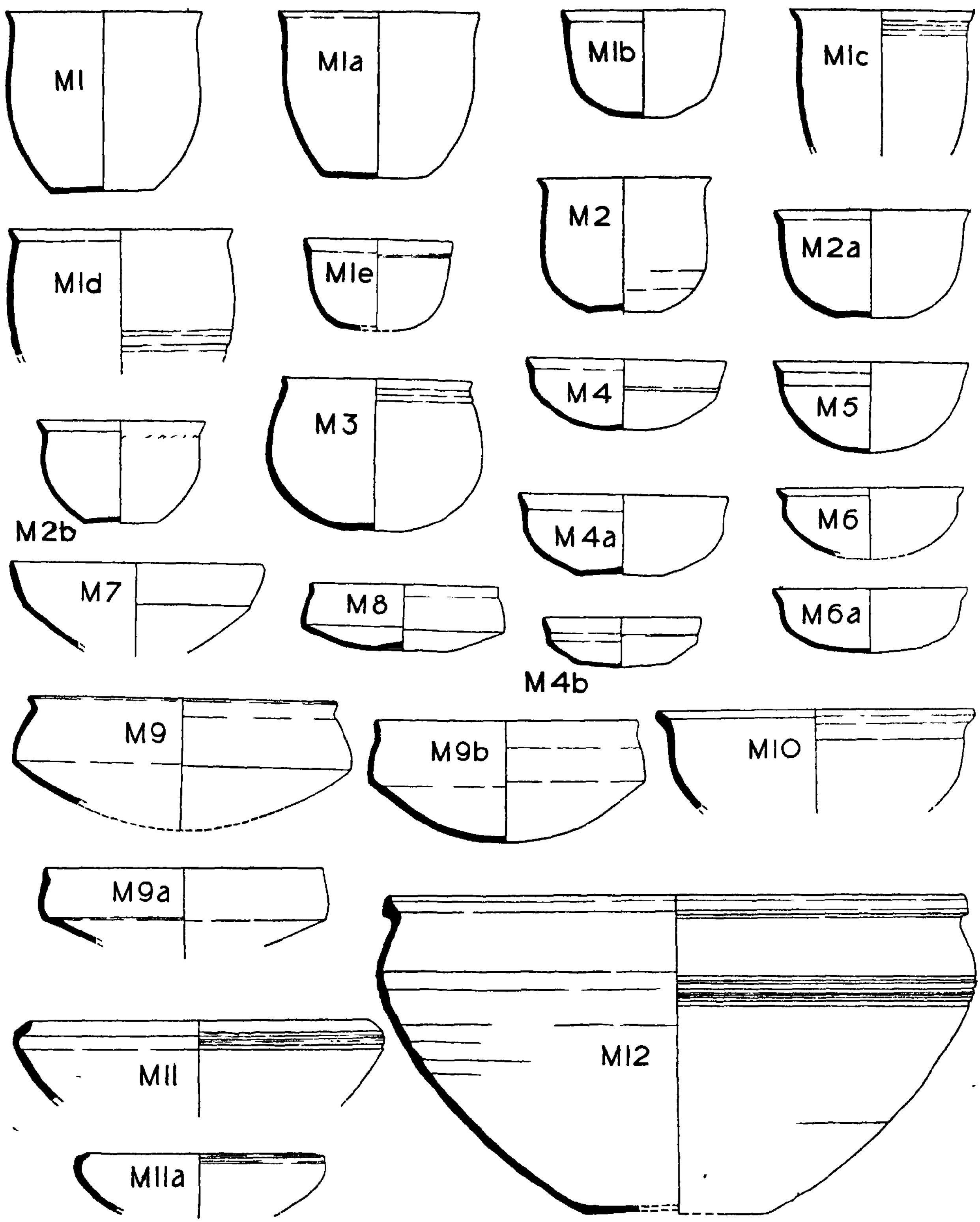


FIG. 43. *Pottery of 'Megalithic' fabric from Chandravalli.* $\frac{1}{4}$

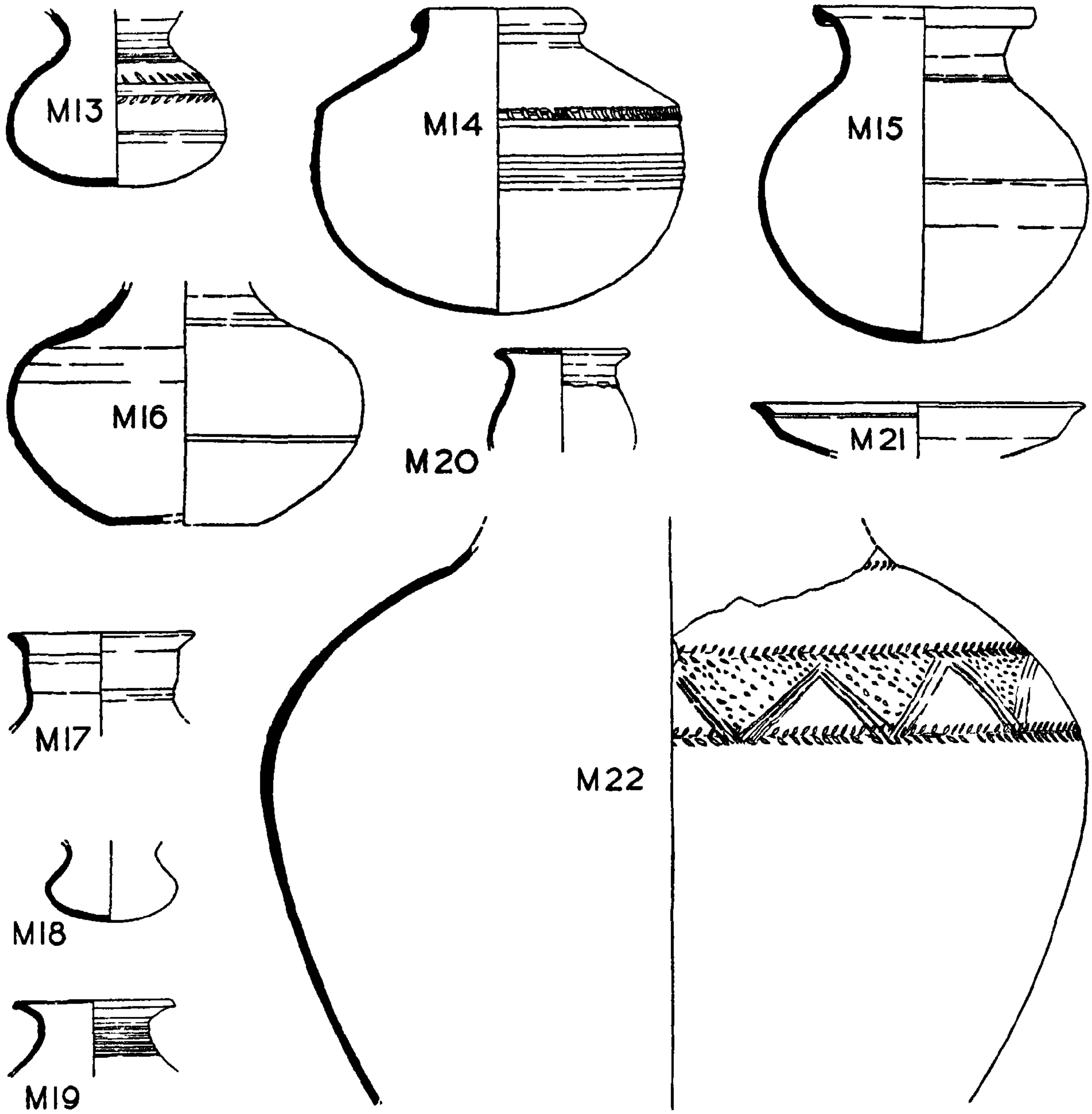


FIG. 44. *Pottery of 'Megalithic' fabric from Chandravalli.* ¼

M1*a*. As above but with wider sides; also salt-glazed.
M1*b*. Burnished black-and-red ware bowl, with internally levelled rim and slightly flattened base.
M1*c*. Fragment of a bowl of similar type but distinguished by a groove below the rim.
M1*d*. Fragment of a bowl of the same type but grooved round the body.
M1*e*. Smaller bowl of similar ware, with grooved rim.
M2. Bowl of black ware with a slightly flared rim and a flat base. Similar bowls are recorded from the Ādichanallur urn-field—A. Rea, *Cat. of Prehist. Antiquities* (Madras, 1925), pl. VI, 36.
M2*a*. Variant of M2 with wider sides; black-and-red ware.
M2*b*. Variant of M2 distinguished by a markedly convex base.

M3. Bowl of black-and-red ware with an externally grooved rim, a globular body and slightly flattened base. Analogies exist at the Ādichanallur urn-fields in the Tinnevelly District—Rea, op. cit., pl. VIII, 4.
M4. Shallow dish of black-and-red ware characterized by a slightly everted and sharpened rim and rounded base.
M4*a*. Variant of M4 characterized by a bluntly carinated profile and a flat base.
M4*b*. Variant of M4 distinguished by smaller size and slightly concave sides. Cf. Brahmagiri Type C17a.
M5. Shallow bowl of black ware, with sharpened rim and rounded base.
M6. Fragment of a bowl with a slightly flared and chamfered rim.
M6*a*. Variant of M6 distinguished, without the chamfered rim.
M7. A rim fragment of a bowl of polished black-and-red ware with a median ledge. It corresponds to Brahmagiri Type C7.
M8. A rare type of shallow carinated dish of black-and-red ware with a low girth and omphalos-base.
M9. Fragment of a sharply carinated dish of black-and-red ware with an out-turned rim and a rounded base.
M9*a*. Variant of M9.
M9*b*. Variant of M9.
M10. Fragment of bowl of black-and-red ware with out-turned rim.
M11. Fragment of a shallow dish of black-and-red ware with grooved shoulder and in-turned rim.
M11*a*. Variant of M11.
M12. Basin of black-and-red ware with heavy grooved rim and flattened base. Akin to Brahmagiri Types C19, P19 and P19a.
M13. Globular vase of black-and-red ware with rounded base. It is characterized by a double row of incised oblique slashes forming a herring-bone pattern round the body, and two prominent grooves on the shoulder.
M14. Short-necked, weakly carinated vase of reddish ware with red slip, heavy beaded rim, globular body and rounded base. Round the shoulder is a line of finger-nail impressions.
M15. Globular vase of dull red-and-black ware with an under-cut everted rim and rounded base.
M16. Vase of polished black ware with weakly cordoned shoulder and flat base.
M17. A fragment of a flat rimmed vase of polished black ware.
M18. Fragment of a squat miniature vase of black and red ware.
M19. Rim of polished black ware, horizontally grooved.
M20. Rim of polished black ware, with cordon at the shoulder.
M21. Fragment of a polished black ware dish with an internally grooved rim. It was recovered from level 13, immediately above the preceding sherds.
M22. Fragment of a large jar of buff ware with bright red slip. It was probably hand-made. Round the neck is a band of finger-nail indentations, and round the shoulder is a frieze of incised triangles, alternately spotted, between bands of herring-bone incisions.

Chandravalli 'Āndhra' pottery

It has been noted above that pottery of the yellow-painted fabric which we have named 'Āndhra ware' occurs in and above the lowest layer but one (layer 13N) of the cutting Ch. 43 (fig. 42). With it from the outset were fragments of the 'beaked' dishes (cf. fig. 47, A10–13) of the type associated with the rouletted pattern of Arikamedu, where this pattern was first identified in conjunction with imported Arretine ware of the second quarter of the first century A.D.[1] Sherds actually bearing the rouletted pattern were found in layers 10 and 9 of Ch. 43, and other fragments of the beaked dishes continued upwards to layer 3; i.e. this type of dish, with or without rouletting, was throughout coincident with the painted 'Āndhra ware'. Some of the sherds (eight in all), occurring sporadically from the 10th up to the 5th layers, bore concentric smoothed bands on the inner side of the base in place of rouletting (pl. CXXIII), and may be regarded as derivative.

[1] *Ancient India*, no. 2 (1946), pp. 45ff. Also below, p. 308.

The upper layers in this sequence produced Sātavāhana coins to which a date in the latter part of the second century A.D. is ascribed (below, p. 287). It is a fair inference, therefore, that the 'Āndhra' pottery of Ch. 43 ranges in period from the middle of the first century A.D. to the end of the second or beginning of the third century. The two uppermost layers of the cutting contained mixed sherds which probably represent various periods extending down to the middle ages or later.

The characteristic painted 'Āndhra' fabric, as at Brahmagiri, is decorated with simple rectilinear designs executed in a lime or kaolin paste under a thin ocherous wash, often with apparent evidence of salt-glazing.[1] The commonest types are straight-sided bowls and 'beaked' dishes. The former was seemingly adopted from the preceding Megalith ceramic (cf. fig. 43, M1–M2); the latter is new and, in view of its special association with the rouletted pattern, may possibly be itself an importation. The painted designs (pls. CXXIV and CXXV and fig. 45) include criss-cross or trellis, radiating lines terminating in pellets, dotted lines, lines with frond-like branches, and occasionally hatched triangles. Of these, vertical or criss-cross lines are the most abundant. On larger vessels, lines of notched or herring-bone pattern, or applied bands of finger-tip pattern, are sometimes added.

For the classification of the pottery, the Āndhra layers of Ch. 43 are grouped as follows (cf. fig. 42):—

Early Āndhra level—layers 13N–11. The preceding Megalith culture continues through these layers alongside the yellow painted ware. From layer 13 upwards the latter is dominant.

Middle Āndhra level—layers 10–7. In these strata the Āndhra painted fabric occurs very abundantly.

Late Āndhra level—layers 6–1. The painted Āndhra wares gradually diminish upwards.

Pl. CXXIII

Nos. 1–3 illustrate the rouletted sherds recovered from the main site (Ch. 43) at Chandravalli. No. 1 is from layer 9, the other two from layer 10. A fourth rouletted sherd (not illustrated) was found in layer 3 of another cutting (Ch. 45), which was almost wholly disturbed by pits and was not stratigraphically reliable. Sherds 4–11 belong to a related type of pottery which, in place of rouletted decoration, bears smoothed concentric bands on the inside of the base. The range of these sherds is between layers 10 and 5 of fig. 42.

1. Sherd with rouletted decoration; from layer 9.
2-3. Sherds with rouletted decoration; from layer 10.
4. Sherd with two concentric bands; from layer 10.
5. Sherd with two bands; from layer 9.
6. Sherd with a single band; from a pit cut into layer 5.
7. Sherd with a single band; from the same level as no. 9.
8. Sherd with two bands; from layer 8.
9. Sherd with one band; from layer 7.
10. Sherd with two bands; from the same layer as no. 8.
11. Sherd with four bands; from layer 5.

Pls. CXXIV—V

The following series illustrates the range of painted designs on the 'Āndhra' ware of Chandravalli (Ch. 43).

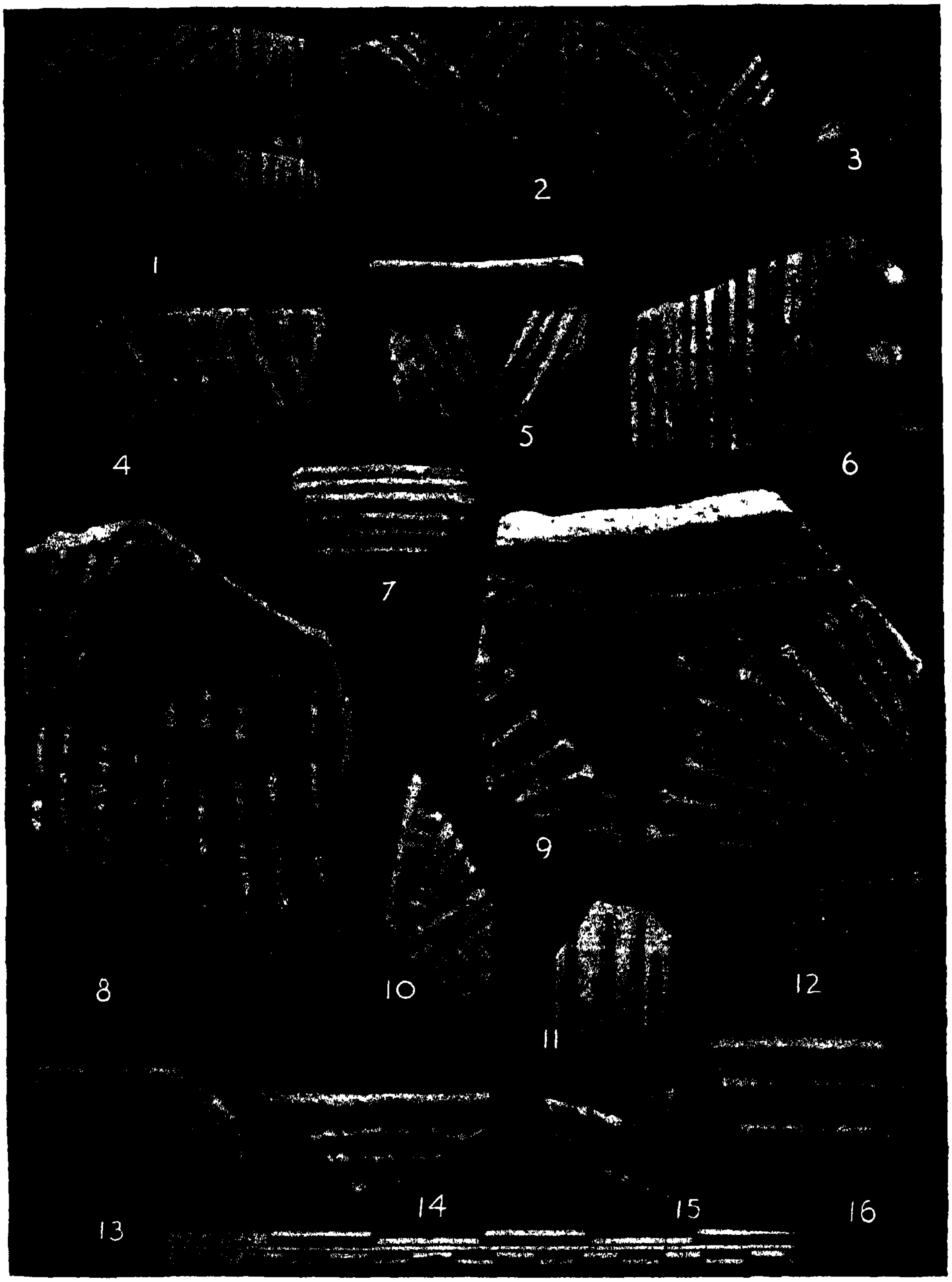
1. Sherd of type A3 (fig. 45), painted with criss-cross pattern; from a middle Āndhra level (10).
2. Sherd of type A6 (fig. 45), painted with a different variety of criss-cross; from a late Āndhra level (3).
3. Sherd of type A1 (fig. 45), painted with oblique bands; from an early Āndhra level (11).

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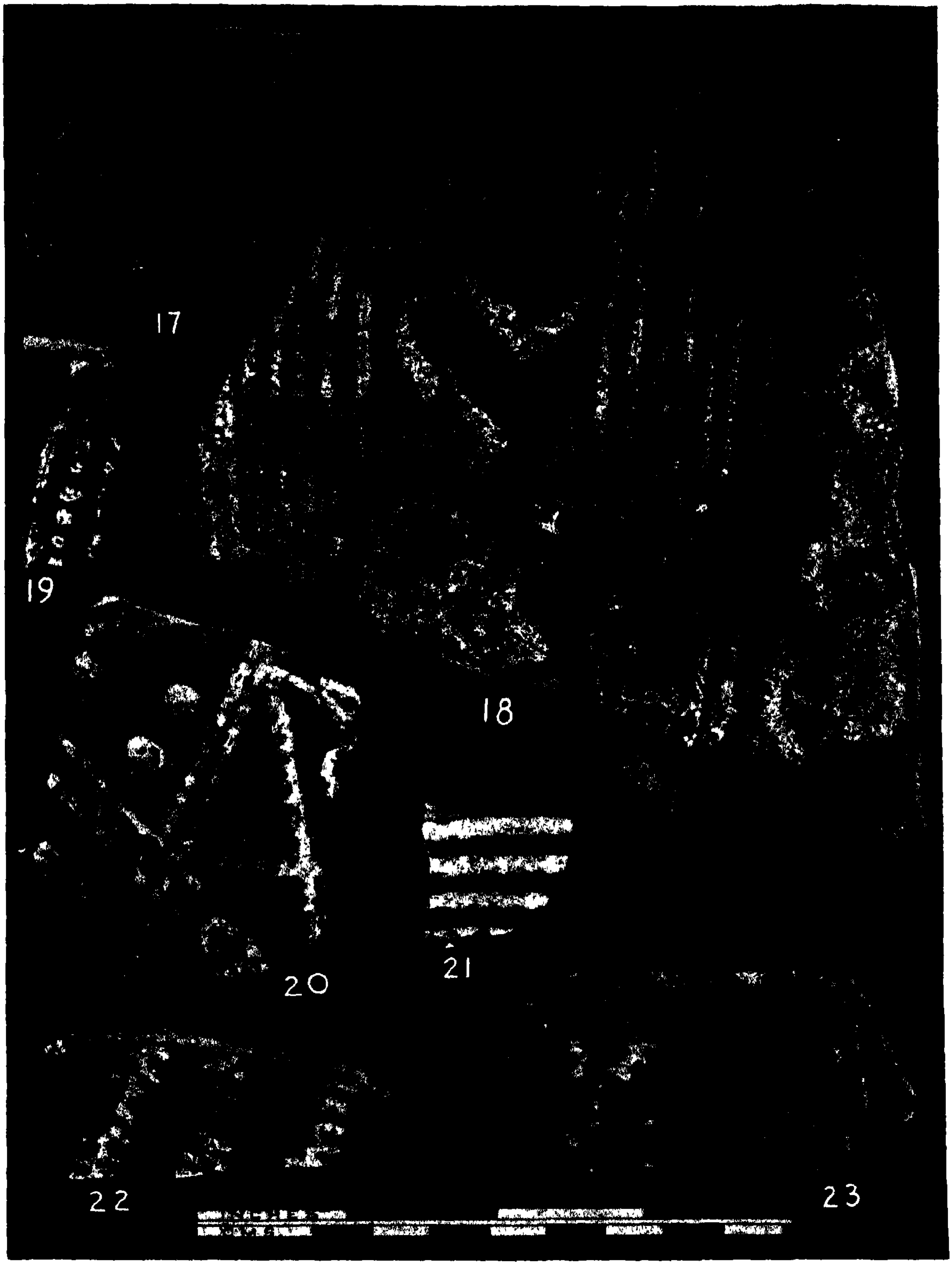
[1] Chemist's notes.



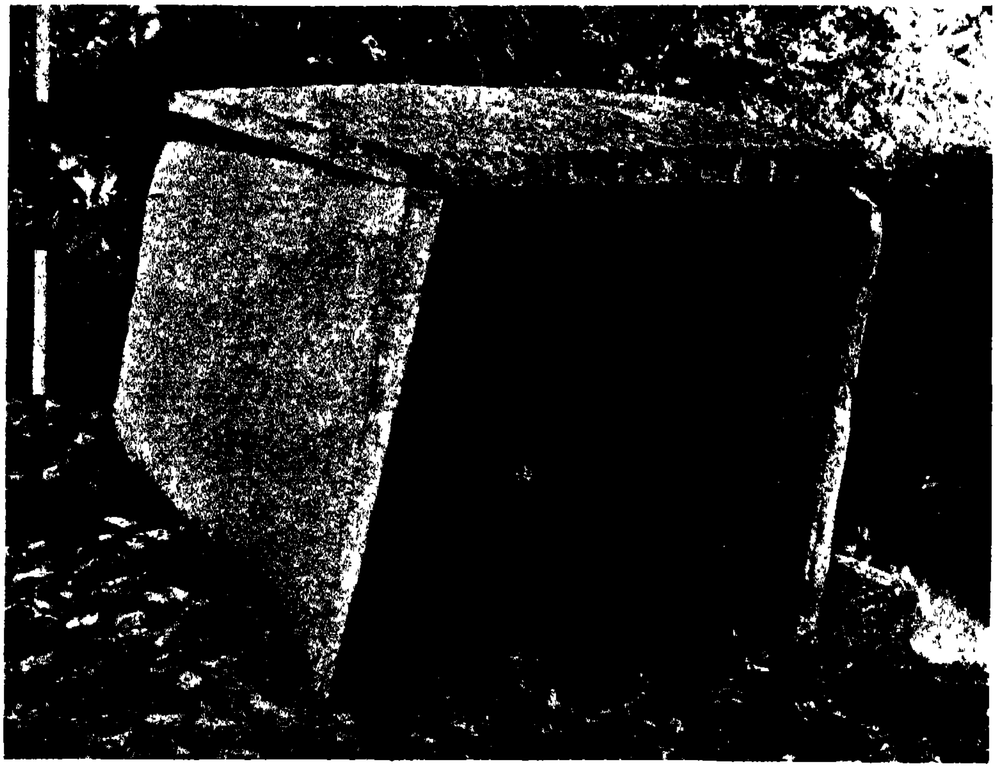
Chandravalli: 1–3, rouletted ware; 4–11, pottery with smoothed concentric bands



Chandravalli: painted 'Āndhra' pottery



Chandravalli: painted 'Āndhra' pottery



A. *Modern Nāga shrine, Brahmagiri.* (*See p. 302.*)



B. *Chandravalli: denarius of Tiberius.* $\frac{1}{1}$. (*See p. 287.*)

4. Sherd of the type analogous to the preceding, painted with lattice pattern; from a middle Āndhra level (8).
5. Sherd of type A4 (fig. 45), painted with criss-cross strokes with pellet ends; from a middle Āndhra level (7).
6. Sherd painted with a group of vertical strokes with bosses; from a middle Āndhra level (10).
7. Rim of type A7 (fig. 45), painted with horizontal lines; from a middle Āndhra level (8).
8. Sherd painted with vertical lines relieved by dots; from the same level as nos. 1 and 6.
9. Sherd painted with radiating lines terminating in pellets; from a middle Āndhra level (7).
10. Sherd painted with occasional hatches; from a middle Āndhra level (9).
11. Sherd painted with vertical bands with bifurcated ends; from a middle Āndhra level (8).
12. Sherd painted with roughly vertical lines; from the same level as no. 8.
13. Rim of type A1 (fig. 45), painted with criss-cross pattern inter-spaced with bosses.
14. Rim of type A5 (fig. 45), painted with horizontal rows of dots; from an early Āndhra level (11).
15. Rim of type A6 (fig. 45), painted with slanting rows of dots; from the same level as the preceding.
16. Rim of type A9 (fig. 45), painted with grouped horizontal lines; from the same layer as no. 12.
17. Sherd painted with ladder pattern from a middle Āndhra level (9).
18. Sherd painted with grouped vertical enclosing wavy lines; from a middle Āndhra level (7).
19. Rim of type A1 (fig. 45), painted with slanting lines enclosing dots; from an early Āndhra level (13).
20. Sherd painted with zigzags and bosses; from the same level as the preceding.

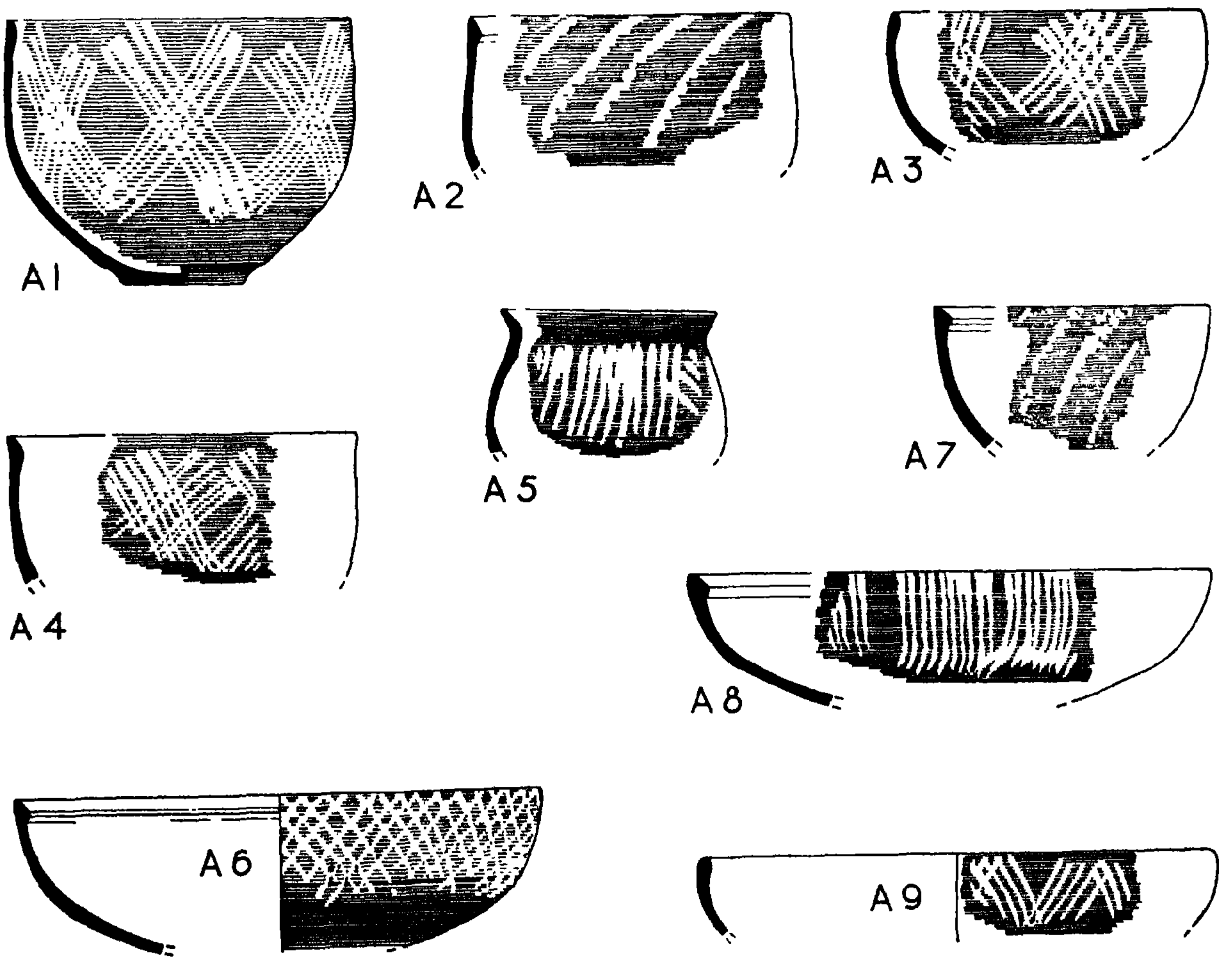


FIG. 45. *Chandravalli: painted 'Āndhra' pottery.* ⅓

21. Rim of type A8 (fig. 45), painted with horizontal bands of comb pattern; from a middle Āndhra level (10).
22. Sherd painted with frond-like pattern; from the same level as preceding.
23. Sherd painted with group of vertical lines enclosing stars, from the same level as the preceding.

Fig. 45

The following are additional typical examples of yellow-painted Āndhra ware from the cutting:

A1. Straight-sided bowl of black-and-red ware with a disc-base, painted with criss-cross pattern. From the earliest 'Āndhra' level (13N).

A2. Fragment of a straight-sided bowl of black-and-red ware with a sharpened rim, painted with slanting rows of dotted lines. From the same level as the preceding.

A3. Fragment of a red-ware bowl, salt-glazed with a slightly convex profile, painted with criss-cross pattern. From a middle 'Āndhra' level (9).

A4. Fragment of a bowl of black-and-red ware, salt-glazed, with an everted rim, painted with criss-cross pattern. From the same level as the preceding.

A5. Fragment of a bowl of black-and-red ware, salt-glazed, with a flaring rim, and painted with roughly vertical and oblique strokes. From the same level as the preceding.

A6. Fragment of a bluntly beaked dish of black-and-red ware, with median groove and painted lattice pattern. From a middle level (8).

A7. Fragment of a beaked dish of black-and-red ware, salt-glazed, painted with oblique waved rows. From an early 'Āndhra' level (11).

A8. Fragment of a dish of red ware with a faced and internally levelled rim, painted with groups of upright strokes. From a middle Āndhra level (10).

A9. Fragment of a dish of black-and-red ware with a slightly thickened rim, painted with grouped chevrons. From a middle Āndhra level (8).

The plainer wares associated with the painted series and the 'beaked' dishes include notably a fine reddish buff ware carefully turned on the fast wheel and covered externally with a smooth bright-red slip.[1] Identical sherds have been found at Konḍāpur (Hyderabad State), where most of the excavated remains appear to be of the Āndhra period, and in the Brahmapuri mound adjoining Kolhāpur in the State of that name, in the south of the Bombay Presidency. On the latter site many fragments and an almost complete vessel were recovered in 1944-5, together with a bronze prototype (fig. 46).[2] At Chandravalli, only sherds were found, but these included a characteristic funnel or neck. They began with layer 13 (fig. 42), immediately above the earliest Āndhra level, and thence ran parallel with painted 'Āndhra ware' up to layer 4. The ware was at no time abundant, and may be regarded as a *de luxe* fabric—possibly a foreign intrusion into the industry. It does not occur at all on the more provincial site of Brahmagiri.

The greater mass of the pottery from the cutting Ch. 43, however, consists of coarse dull-red ware, all wheel-turned with the exception of occasional large jars. Much of it lacks slip or polish, but a number of sherds have a red slip. Occasional instances of black and grey ware have also been observed. The commonest types are conical open-mouthed bowls with disc-bases, shallow dishes, and lids with flanged waists. The few spouts and handles show a sparing use of these utilitarian devices. As on the larger painted jars, the big vessels sometimes have applied finger-tip or incised herring-bone pattern.

[1] The Archaeological Chemist reports: 'It is clear that the potsherds are not glazed. The pots were evidently carefully finished by applying a wash of finely levigated ferruginous clay. After drying and polishing, they were fired in an oxidizing atmosphere.'

[2] Now in the Kolhāpur Museum, with Graeco-Roman objects from the same site.

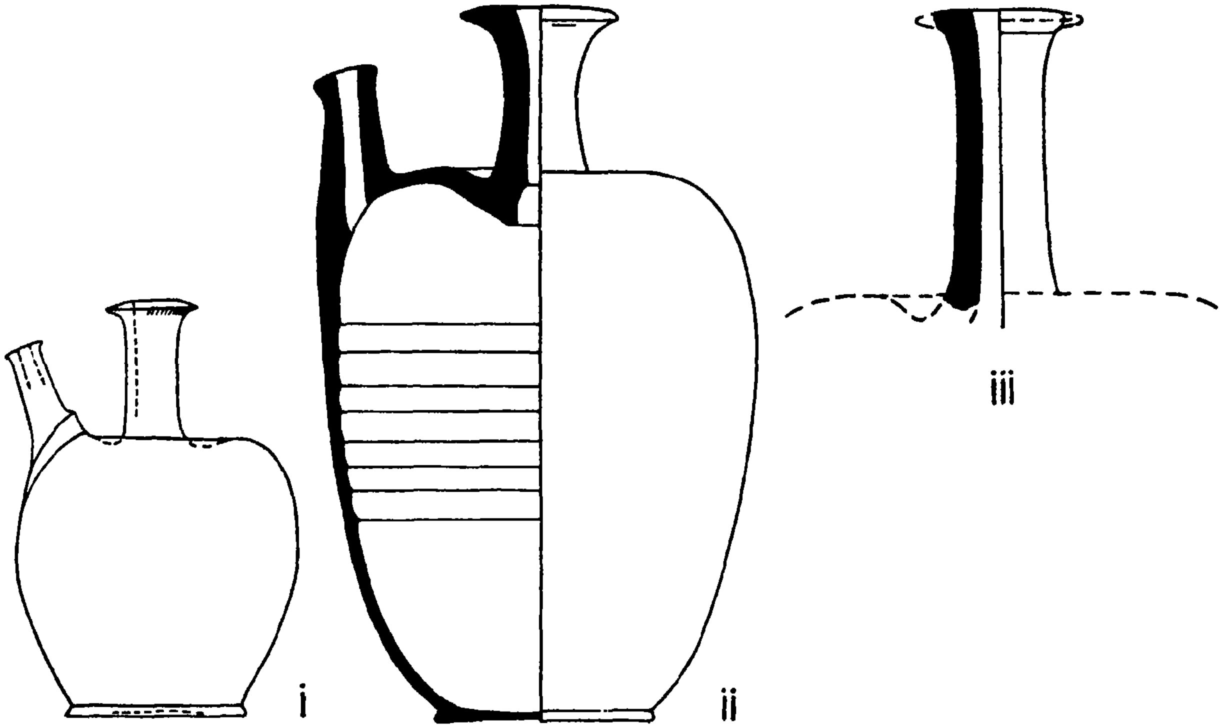


FIG. 46. *Polished red-ware vessel (ii) from Kolhāpur, with bronze prototype (i) from same site, and fragment of similar red-ware vessel (iii) from Chandravalli.* ½

Figs. 47–49

The following pots and potsherds represent the range of unpainted types in Ch. 43.

A10. Rim of a beaked dish, from an early 'Āndhra' level (13), identical in fabric to the typical 'Arikamedu' dishes to which rouletted decoration is sometimes applied.[1] The type with many of its variants is fairly common at Chandravalli.

A11. Similar to 1, but with an unpronounced beak. From a late Āndhra level (3).

A12. Fragment of a dish of black-and-red ware with a bluntly beaked rim. It is also represented in red ware. From a middle Āndhra level (10).

A13. Fragment of a black-ware dish, distinguished by a markedly inward projection of the rim. From the earliest Āndhra level (13N).

A14. Fragment of a dish of brownish black polished ware with incurved sides and flattened rim. From a late Āndhra level (3).

A15. Dish of black-and-red ware with a slightly thickened rim; from a late Āndhra level (5). Variant 6*a* is of thinner section; from level 6.

A16. Dish of reddish polished ware with internally clubbed rim. From a middle Āndhra level (10).

A17. Fragment of a beaked dish of black-and-red ware with carinated profile. From a middle Āndhra level (9).

A18. Fragment of a dish of black-and-red ware with internally levelled rim. From a middle Āndhra level (7A).

A19. Fragment of a black ware dish with a chamfered rim. From a middle Āndhra level (8).

A20. Fragment of a dish of black-and-red ware with a bluntly beaked rim. From a middle Āndhra level (8).

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[1] *Ancient India*, no. 2 (1946), p. 45.

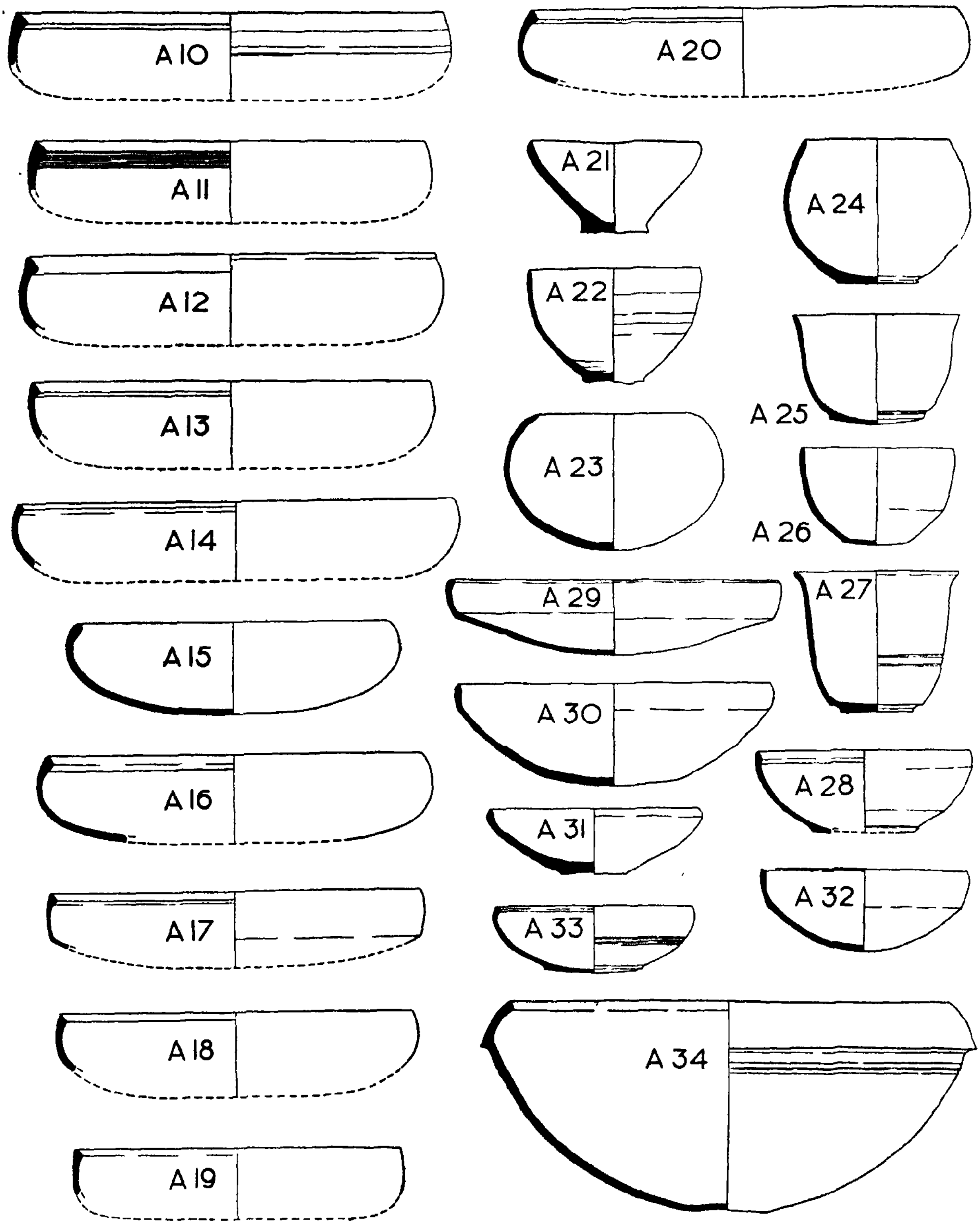


FIG. 47. *Chandravalli: 'Āndhra' pottery.* ¼

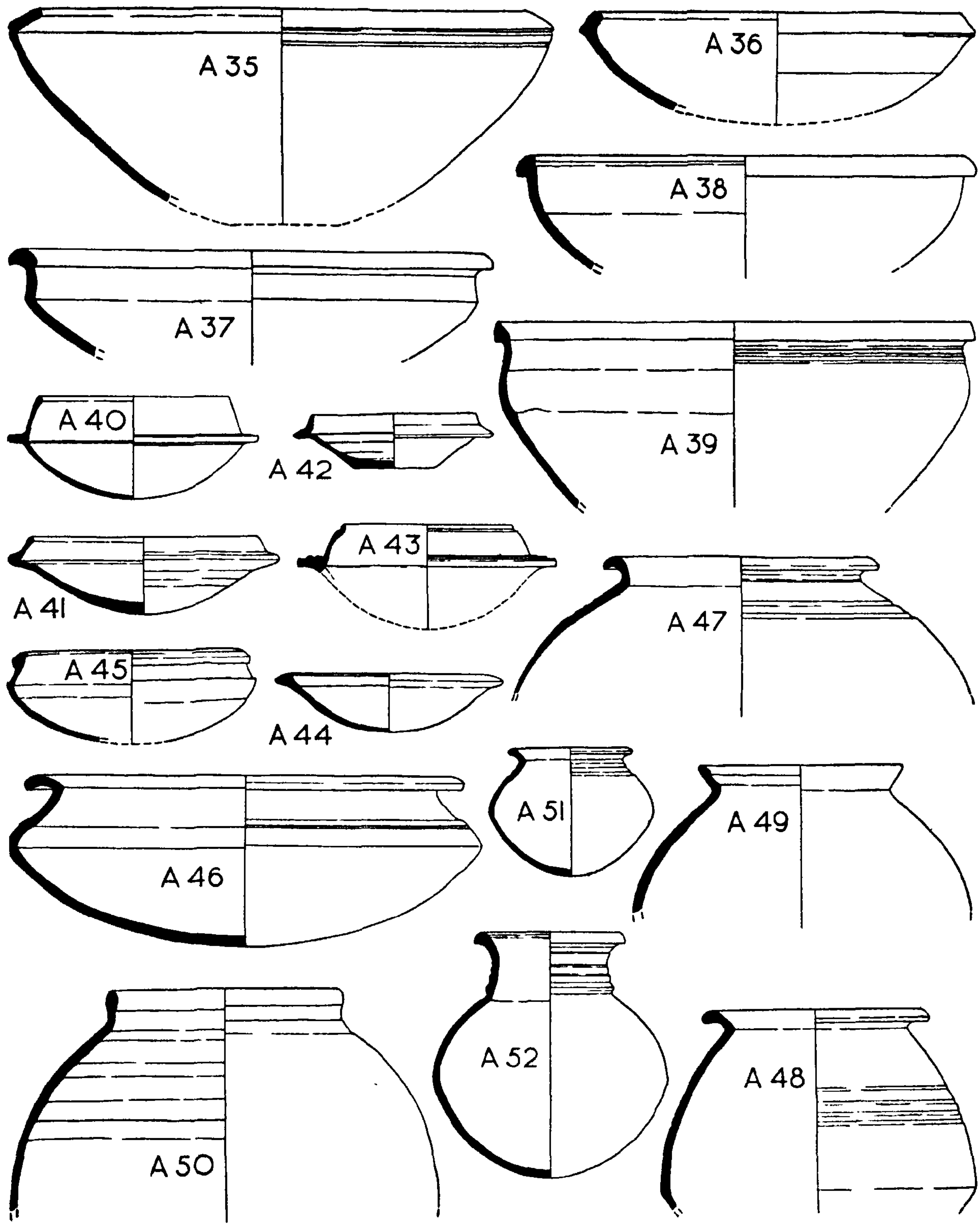


FIG. 48. *Chandravalli: 'Andhra' pottery.* ¼

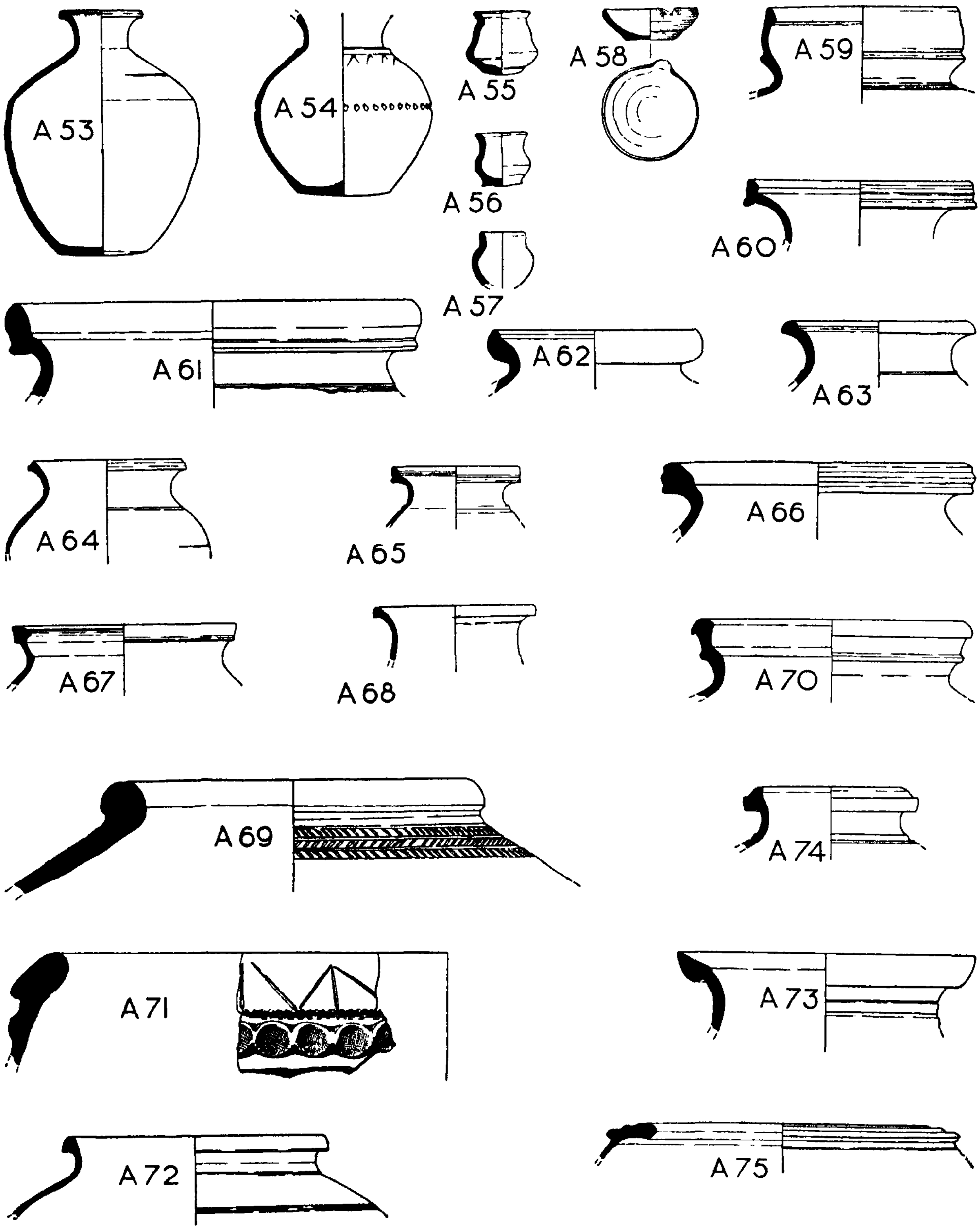


FIG. 49. *Chandravalli: 'Āndhra' pottery.* ¼

A21. Wide-mouthed bowl with sides tapering to a restricted disc-base. It is of a coarse dull-red fabric, devoid of slip, and is occasionally represented also in grey ware. It is the commonest type at the site but is found more abundantly in the upper than in the lower strata. The type is indeed widespread and long-lived, and is scarcely distinguishable from modern vessels used in India for food and drink; they are normally thrown away after a single usage.

A22. Similar to the preceding but with a more convex profile. From a middle Āndhra level (7).

A23. Bowl of dull reddish ware with a bulbous profile and a round base. From a middle Āndhra level (7). Only one example of this type was recovered.

A24. Bowl of black-and-red ware with incurved sides and a flat base. From a middle Āndhra level (6). Only one example of this type was found.

A25. Straight-sided bowl of polished buff ware with a saggar ring-base. From a middle Āndhra level (9).

A26. Bowl of polished black ware with a flattened base. Only two examples were found. From a pit contemporary with a middle Āndhra level (7).

A27. Deep beaker with everted rim, ring-base and horizontal grooves. It is of a coarse dull red fabric. The only example was recovered from a middle Āndhra level (7).

A28. Bowl of polished ware with a red slip, internally beaded rim, and ring-base. From a middle Āndhra level (7). Some examples of this type are slipped only internally.

A29. Shallow carinated dish with rounded base. It is of a comparatively fine fabric and has a red slip on both sides. From a middle Āndhra level (9). The type occurs occasionally also in coarse grey ware. It is one of the most popular types at Chandravalli and occurs throughout the Āndhra strata, except in the earliest. Comparable with Arikamedu type 8 (*Ancient India*, no. 2, p. 54).

A30. Dish of red ware with rounded base. The type is usually treated with a red slip on both sides and is fairly common in all the Āndhra strata except in the earliest.

A31. Shallow dish with a disc base. It is of coarse dull-red fabric, without any slip, and is found abundantly in the upper strata. Comparable with no. 21 above.

A32. Bluntly carinated dish with a rounded base. It is treated with a red slip both inside and out. From a middle Āndhra level (10). The type is not very frequent. It is akin to the Chandravalli 'megalithic' dish M4.

A33. Dish of black ware with a slightly thickened rim, grooved sides and disc-base. From a pit equated with middle Āndhra level (7). A rare type.

A34. Carinated basin of red ware with a flanged rim and a round base. It is of a coarse gritty ware. From a pit equated with Āndhra level (5).

A35. Fragment of a basin of polished brown ware, with sharply incurved rim and grooves round the shoulder. From the earliest Āndhra level (13N).

A36. Fragment of a basin with heavy incurved rim. It has a red slip both inside and out. From a middle Āndhra level (8). The type is represented also in black ware.

A37. Fragment of a carinated basin with a heavy rim. It is treated with red slip both inside and out. From a middle Āndhra level (9). The type also occurs in a bluntly carinated variant.

A38. Fragment of a simple basin with a beaded and undercut rim. It has red slip both inside and out. From the same level as the preceding.

A39. Fragment of a basin with an undercut rim and grooved neck. From the earliest Āndhra level (13N). The type seems to have been derived from a megalithic prototype (cf. M12).

A40. Lid of coarse, dull-red ware with a flange at the waist and a rounded base. It represents one of the most abundant types of the site. From a pit in a late Āndhra level (cut into layer 5).

A41. Similar lid of grey ware, but with a less pronounced flange. From a pit cut into level (7). The type occurs also in dull-red ware.

A42. Red-ware lid distinguished by a flattened base. It is of a finer buff fabric, and has a red slip above the flange and on the interior. From a middle Āndhra level (8). The type, with slight variations, occurs also in coarse and unslipped red ware.

A43. Fragment of a small dish or lid with an externally grooved rim and a ridged flange. From a late Āndhra level (5).

A44. Shallow dish-like lid of black ware with a flattened and internally grooved rim and a round base. From a late Āndhra level (6).

A45. Carinated vase of grey ware with a beaded rim and a round base. From a pit cut into Āndhra level (5). The type may have been used partly as a lid.

A46. Carinated vessel of reddish ware with flanged rim, weakly cordoned shoulder and round base. From a pit in a late Āndhra level (cut into layer 7). The type is represented both in red and grey ware and is found in almost all the Āndhra strata, except in the earliest. Similar vessels have also been recovered from Arikamedu (cf. Arikamedu type 24).

A47. Fragment of a vase of slipped red ware with an undercut rim, characterized by a groove on the top, and a corrugated shoulder. From a late Āndhra level (5).

A48. Fragment of a grey ware carinated vase with a flanged rim and a series of grooves round the shoulder. From a middle Āndhra level (7).

A49. Fragment of a red ware vase with a flaring rim, internally grooved to receive a lid. It is treated externally with a red slip. From the earliest Āndhra level (13N).

A50. Fragment of a vase of reddish black ware with a short straight neck and a horizontal rim; treated externally with a red slip. From an early Āndhra level (13).

A51. Small vessel of grey ware with grooved shoulder. From a middle Āndhra level (7).

A52. Vase of dark red ware, possibly salt-glazed, with high ridged neck and round base. From the same level as the preceding.

A53. Bottle-shaped vessel with imperfectly flattened base. It is treated with a sepia brown slip and is possibly salt glazed. From the same level as the preceding. It is an exceptional type and is probably derived from a metal prototype.

A54. Vase of slipped red ware with a globular body and a flat base. It is ornamented with a row of indentations round the body and notches round the shoulder. From a pit cut into layer (7).

A55. Miniature vase of grey ware with low girth and rounded base. From a middle Āndhra level (7).

A56. Miniature vase of the type analogous to the preceding, but with a flat base. From the same level as the preceding. The type occurs also in red ware.

A57. Fragment of a rough miniature vase. From a late Āndhra level (5).

A58. Lamp of coarse dull-red ware with a lip and a flat base. Such clay lamps are widely used today in India. From the same level as nos. 46-47.

A59. Fragment of a vessel of slipped red ware with a cordon below the rim. From a middle Āndhra level (9). Variants of this type occur also in black ware.

A60. Fragment of a vessel of coarse reddish ware, black inside and on the rim, which is flanged and grooved. From a middle Āndhra level (8).

A61. Fragment of slipped red ware grooved rim. From a middle Āndhra level (10). A diminutive form of this type occurs also in grey ware. The type is fairly common and occurs throughout the Āndhra strata, except in the earliest. In one instance the cordon is decorated in a notched pattern.

A62. Fragment of a vessel of slipped red ware with rim rebated to receive a lid. From a middle Āndhra level (8).

A63. Fragment of a vessel of slipped red ware with internally grooved rim. From the same level as the preceding.

A64. Rim of a vase of slipped red ware. From a late Āndhra level (5).

A65. Rim of coarse reddish ware internally ledged to receive a lid. From the same level as nos. 51-53.

A66. Grooved rim of slipped red ware. It is of a coarse gritty fabric. From a middle Āndhra level (10).

A67. Grooved rim of grey ware. From the same level as the preceding.

A68. Rim of black-slipped buff ware. From an early Āndhra level (11).

A69. Fragment of a heavy roll-rimmed vessel of slipped red ware, decorated with incised herring-bone pattern. From a late Āndhra level (5).

A70. Fragment of a vase of slipped red ware with a recurved rim. From a middle Āndhra level (10).

A71. Rim of coarse red ware with an applied band of finger-tip pattern on the neck and incised zigzags on the rim. From a late Āndhra level (5). The applied finger-tip pattern is a common feature of middle and late Āndhra layers.

A72. Fragment of slipped red ware with an undercut rim, and cordon round the neck. From a late Āndhra level (4).

A73. Rim of slipped red ware. From a lower Āndhra level (13).

A74. Grooved rim of red ware. From a late Āndhra level (4).

A75. Grooved oblique rim of grey ware. From a middle Āndhra level (7). The type is represented both in plain red and grey ware.

(iii) The Chandravalli coins (1947)

Of the coins found on the main site (Ch. 43) at Chandravalli in 1947, the most definitely datable is a denarius of the Roman emperor Tiberius of late Livia-Pax type, minted *c.* A.D. 6–372 and lost when in fairly good condition (pl. CXXVI B). Unfortunately, its evidential value is vague. It was found in layer 5 (fig. 42), and the same layer yielded a potin coin of Yajña Śātakarṇi whose date is uncertain but may have been late in the second century A.D. (see below). Another potin coin of the latter ruler occurred at a slightly lower level, in layer 6. Otherwise no dated and clearly stratified coin was discovered, although one of Vāsishṭhiputra Śrī-Puḷumāvi, who is fairly well dated to *c.* A.D. 131–155 (below, p. 291), was found high up (in the second layer from the top) in another cutting (Ch. 45), where the stratification was less reliable and cannot in any case be correlated with that of the main site.

If the inferential dating of Yajña Śātakarṇi be accepted, it is evident that the Roman denarius was not lost before the latter half of the second century A.D., considerably more than a century after it was minted. This conclusion is by no means unlikely. There is evidence, which I shall discuss elsewhere, that the aurei and denarii of the Roman principate were introduced into India not as an imposed currency but as bullion of a quality and weight guaranteed by the imperial stamp. They were used in bulk and have in fact, in a large majority of cases, come down to us as hoards. In that capacity they passed from hand to hand, with additions and subtractions, sometimes for a long period, if indeed some of them did not already include outmoded coins from the start. An interesting light is thrown on this matter by a hoard of Roman gold and silver coins found with native square punch-marked silver coins in a pot at Eyyal, 22 miles north-west of Trichur in Cochin State, in 1945. The Roman coins in this hoard mainly represent Augustus, Tiberius, Claudius and Nero, but end with an aureus of the second consulate of Trajan (A.D. 98-9), over a century later than the mint-date of the earliest coin.

It is probable that the six scattered Roman denarii found at Chandravalli in a fairly compact area during a series of excavations extending from 1909 to 1947 represent a *quondam* hoard, dissolved anciently and used locally as a high-value currency alongside the local potin coinage, at a time when this Roman bullion-trade had ceased or in a place to which it had not penetrated. The bullion-trade reached its maximum on the basis of the coinage of Tiberius (A.D. 14–37) and, with rare survivals of which one has just been mentioned, came to an end in the third quarter of the first century A.D. The use of the *disjecta membra* of these first-century hoards at times or in regions remote from those of the maritime trade which introduced them is a likely enough sequel.

We may therefore have no special compunction in regarding the denarius as an intruder into our stratification, and may provisionally ascribe strata 5 and 6 of Ch. 43 to the latter half of the second century A.D. This is consistent with the discovery, mentioned above,

of a coin of Vāsishṭhīputra Śrī-Puḷumāvi in the penultimate stratum of cutting Ch. 45, and with a date somewhat after A.D. 200 for the final Āndhra occupation of Chandravalli. This in turn accords with the historical probability that the Āndhra empire was in dissolution by the middle of the third century A.D.[1]

Mr. Krishna Deva, who has prepared the subjoined list of coins, adds the following note on the dating of Yajña Śātakarṇi.

There is no direct evidence for the dating of Yajñaśrī Śātakarṇi. The following data, however, provide indirect evidence on the point.

In the long lists of the Āndhra rulers supplied by the Purāṇas, there is only one ruler named Yajñaśrī, whose relative position in the dynastic lists [2] is shown as follows:—

23.	Gautamīputra	.. 21 years.
24.	Pulomā[vi]	.. 28 years.
25.	Śivaśri Śātakarṇi	.. 7 years.
26.	Śivaskanda Śātakarṇi	.. 7 years.
27.	Yajñaśrī Śātakarṇi	.. 29 years.

Yajñaśrī Śātakarṇi strikes silver coinage in close imitation of the popular Western Kshatrapa type (*obv.* head of king; *rev.* crescent on hill, with the sun and moon symbols) which was started by Chashṭana.[3] He is therefore later than Chashṭana whose known date is Śaka 52[4] = 130 A.D.

The palaeography of the inscriptions and coins of Yajñaśrī Śātakarṇi shows developed features as compared with those of Vāsishṭhīputra Puḷumāvi and indicates that he flourished later than Puḷumāvi, who has been reasonably dated to *c.* A.D. 131–155 (see below, p. 291). The developed features comprise the use of the looped variety of *t* [5] and the prominent serif [6] over letters.

The substantial accuracy of the dynastic list of the Purāṇas is corroborated as much by the palaeographical evidence cited above, which makes Yajñaśrī posterior to Puḷumāvi, as by the testimony of an inscription of the former, dated in his regnal year 27[7], which is consistent with the 29 years assigned to him by the Purāṇas. Adding to the last date of Puḷumāvi, viz., *c.* A.D. 155 (see below, p. 291), the 14 years of the reigns of two intervening kings as supplied by the Purāṇic list, we get *c.* A.D. 155 + 14 = *c.* A.D. 169 as the date of accession of Yajñaśrī, and *c.* A.D. 169 + 27 = *c.* A.D. 196 as his terminal date, assuming that he reigned only for the 27 years indicated (as a minimum) by the epigraph referred to.

Of a total of fifty-five coins found in the present excavation, only two are of silver (nos. 1-2), of which one is the Roman denarius discussed above and the other is a rectangular punch-marked coin, representing an early Indian currency which, however, continued in circulation until at least the second century A.D.[8] Of the remaining coins, which are all made either of lead or of potin (an alloy of copper, zinc, lead and tin), forty-three are legible and definitely attributable to the Āndhras and their feudatories, while the residue of ten coins, though illegible, may also be assigned to the chiefs or feudatories of the same dynasty on account of their material and associations.

The silver punch-marked coin (no. 2), which came from stratum 7 of the main section, shows a new type with blank reverse and a group of five symbols on the obverse of which

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1 E. J. Rapson, *Brit. Mus. Cat. of Coins of the Āndhra Dynasty* (London, 1908), p. xliv.

2 Ibid., p. lxvi.

3 Ibid., pl. X, 259–262.

4 *Epigraphia Indica*, XVI, pp. 19ff.

5 Ibid., pl. VI, 139 and 146; *Epigraphia Indica*, VIII, p. 94, pl. I, 24.

6 Rapson, op. cit., pl. VIII, 165.

7 *Epigraphia Indica*, I, p. 96.

8 J. Allan, *Brit. Mus. Cat. of Coins of Ancient India* (London, 1936), pp. xlviii f.

only four (fig. 50, 1–4) can be identified. One of these is the solar symbol, which is the most frequent symbol on the punch-marked currency [1]; another is a floral design,[2] which occurs on the reverse of some punch-marked copper coins; a third symbol, resembling the *ḍamaru* or hour-glass, is known to occur as a reverse mark [3]; while the fourth, which is incompletely preserved, appears to represent the arrow-head.

Of the Āndhra coins, only three, comprising one coin of Puḷumāvi (no. 3) and two of Yajña Śātakarṇi (nos. 4-5), are definitely attributable to the main line; while as many as fifteen (nos. 6–20) belong to Āndhra feudatories. Of the latter, all coins with the exception of two (nos. 19 and 20), come from deep layers ranging from stratum 7 to 10 from the top (fig. 42). This circumstance accords well with the earlier palaeography of these coins, as compared with those of Puḷumāvi and Yajña Śātakarṇi. In fact, on the general grounds of palaeography alone, these coins, though not specifically datable, are assignable to a pre-Puḷumāvi period, though not in any case, it seems, earlier than *c.* 50 B.C.[4] The most numerous and the best preserved of these are the issues of Sadakaṇa Kaḷalāya Mahāraṭhi, who is represented by nine coins (nos. 6–14) of a known variety and one coin (no. 15) of an unknown variety with a new reverse type, showing a hitherto unpublished symbol, which, on the analogy of a design occurring on roughly contemporary sculptures,[5] may be identified as the 'double-fish' symbol. More interesting than these are coins, nos. 16–18, yielding the names of two chiefs, hitherto unknown, who may have belonged to the same family as Sadakaṇa Kaḷalāya Mahāraṭhi, since they use a common coin-type and designation. The legend on nos. 16-17 is *Sadakaṇa Chaṭa-Kanha Maharaṭhisa* and on no. 18 *Sadakaṇa Kaṇasa Maharaṭhi-putasa*, the last being a coin of a 'son of Mahāraṭhi' or of a prince acting perhaps as a lieutenant of the Mahāraṭhi. Coin no. 19 showing the bull reversed appears to belong to an anonymous and probably later Mahāraṭhi chief, as this coin was found in a higher stratum (layer 6) than those just discussed. Similarly, the Chuṭu Kaḷānanda of coin no. 20 (which was found in a pit also corresponding to layer 6) may be a successor of the Mahāraṭhis, since the designation *Mahāraṭhi* is absent from his coin-legend, which also shows a later palaeographical feature in the use of exaggerated serifs.

A special interest attaches to coin no. 21, which shows a new type. Unfortunately the major part of its legend has missed the flan. Its obverse type of an elephant standing left is similar to that published on certain square coins from Koṇḍāpur [6] bearing the name of Gautamīputra Śātakarṇi, though the obverse symbol of bow and arrow and the reverse design seem to connect it with the issues of Vāsisṭhiputra Viḷivāyakura and Māḍhariputra Sivalakura, found in the Kolhāpur District of Mahārāshṭra.[7]

The uninscribed coins (nos. 25–45) have here been classified under Types A–G in accordance with the designs which they bear. Types F and G are connected with the

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[1] Allan, op. cit., p. xxii.

[2] Ibid., p. 101, pls. XII-XIII.

[3] Ibid., pp. 26, 27, 48.

[4] The characters of these coins are identical with those of the Sānchi inscription of Śātakarṇi, dated by N. G. Majumdar to *c.* 50 B.C. See John Marshall, A. Foucher and N. G. Majumdar, *The Monuments of Sānchi* (Govt. of India Press, Calcutta, 1941), I, 275–277.

[5] V. S. Agrawala, *A short Guide-book to the Archaeological Section of the Provincial Museum, Lucknow* (Allahabad, 1940), pls. V-VI.

[6] G. Yazdani, 'Excavations at Kondapur', *Annals of the Bhandarkar Orient. Res. Inst.*, XXII, 180, pl. XV, 16–18.

[7] E. J. Rapson, op. cit., pl. I, 14-15 and pl. II, 17–26.

Mahāraṭhi coins (nos. 6–19) by the humped bull on the obverse and the crescent on a hill or tree within a railing on the reverse. Similarly, Types B, C and D, showing the hill-symbol on one side, connect themselves with Type F, while Type A is related to Type B by the obverse design and to Type C by the reverse design. Thus all the uninscribed types appear to be mutually connected. It is further worth noting that, of a total of seventeen uninscribed coins from the stratified layers, fourteen come from the deeper layers 7–9, which also yielded the majority of the Mahāraṭhi coins. It is, therefore, not unlikely that the uninscribed types, being invariably of a smaller size and weight, were issued by the Mahāraṭhi chiefs as smaller denominations to supplement their larger currency.

(*a*) ROMAN DENARIUS

1. (pl. CXXVI B.) *Obv.* Head of Tiberius, laureate, r.

TI CAESAR DIVI AVG F AVGVSTVS

Rev. Female figure, draped, seated r. on chair, holding branch in l. hand and long sceptre in r. The woman's feet rest on foot-stool. Legs of chair ornamented. Below chair, single line. (The figure represents LIVIA as Pax.)

PONTIF MAXIM

r. up, l. down.
Size ·7"; wt. 2·89826 gm.
Condition when lost: fairly good.
Cf. H. Mattingly, *Brit. Mus. Cat. of Roman Coins*, I, pp. cxxx and 126, and pl. 23, 4–9. The type dates from the latter part of the principate of Tiberius, *c.* A.D. 26–37. Ch. 43 B-167, stratum 5.

(*b*) SILVER PUNCH-MARKED COIN

2. *Obv.* A group of five symbols of which four (fig. 50, 1–4) can be identified.
Rev. Blank.
Rectangular, size ·53"×·42"; wt. 2·58632 gm. New type. Condition—fairly worn. Ch. 43 AI-92, stratum 7.

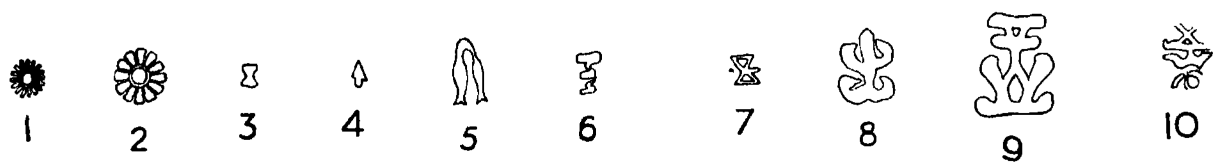


FIG. 50

10B

(*c*) Āndhra coins[1]

Inscribed coins of certain attribution

(*Vāsishṭhīputra*) *Śrī-Puḷumāvi* (*c. A.D. 131–155*)[2]

(Same as Rapson, p. 21, pl. V, 90-91, found in Chanda District. Also found on the Āndhra site at Koṇḍāpur, Hyderabad State[3]; and in a hoard of Sātavāhana coins from Tarhālā, Akola District, Berar.)[4]

3. *Obv.* Indistinct elephant, with trunk upraised, standing r. Inscription: .. [*Puḷu*]*ma*[*v*] .....
   Rev. Ujjain symbol with a pellet in each orb. Size ·6″; wt. (fragmentary) 1·610 gm. Condition—corroded and mutilated. Unstratified. Ch. 45 A_2-163.

Śrī-Yajña-Śātakarṇi (*c. A.D. 169–196*)

(Same as Rapson, p. 42, pl. VII, 165-166, found in Chanda District. Also found on the Āndhra site at Koṇḍāpur, Hyderabad State; and in a hoard of Sātavāhana coins from Tarhālā, Akola District, Berar.)

4. *Obv.* Indistinct elephant, with trunk upraised, standing r. Inscription: ... [*ña*] *Sāta*[*ka*] .....
   Rev. Ujjain symbol with a pellet in each orb.
   Size ·74″; wt. 3·265 gm. Condition—very corroded. Ch. 43 AI-21, stratum 5.
5. Same as no. 4 but more distinct. Inscription: ... [*Si*]*r*[*i*] *yaña-S*[*ā*]*ta* .....
   Size ·7″; wt. 2·568 gm. Condition—fair. Ch. 43 AI-38, stratum 6.

Sadakaṇa Kaḷalāya Mahāraṭhi

Variety *a*

(Same as Var. *a* of Rapson, p. 57; pl. VIII, 233.)

6. *Obv.* Humped bull standing l. Inscription: *Sadakaṇa Kaḷalāya Mahāraṭhisa.*
   Rev. l., tree within railing; r., crescent on hill, consisting of two tiers of small arches and one large arch, with a line (river-symbol) below.
   Size 1″; wt. 12·826 gm. Condition—good. Ch. 43 AI-140, stratum 7.

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[1] These coins are round and made of either lead or potin.

[2] The evidence for dating Vāsishṭhīputra Puḷumāvi is as follows:—

Gautamīputra Śātakarṇi, father and predecessor of Vāsishṭhīputra Puḷumāvi, conquered Nahapāna and restruck his coins. As the last recorded date of Nahapāna is Śaka 46 = A.D. 124, the regnal year 18 of Gautamīputra Śātakarṇi (known from his inscription indicating his conquest of Nahapāna) will fall in the year A.D. 124 + X, the value of X being a small or even negligible quantity. His regnal period of 24 years, known from an inscription, will therefore fall between *c.* A.D. 106 and 130.

On the testimony of inscriptions, Vāsishṭhīputra Puḷumāvi was a son-in-law of Rudradāman whose Girnār epigraph, dated in Śaka 72 = A.D. 150, refers to having 'twice defeated but not slain owing to nearness of relation' the former. This indicates that Puḷumāvi lived beyond A.D. 150.

Ptolemy, who wrote his geography about A.D. 140, mentions as his contemporaries Tiastenes, ruler of Ozene, and Siriptolemaios, ruler of Baithana, who may be identified respectively as the Western Kshatrapa ruler Chashṭana and the Āndhra ruler Puḷumāvi. It may be noted in this connection that Paiṭhana is known in the Jaina tradition as the capital of the Sātavāhanas and was included in the dominion of Puḷumāvi, as is evident from the distribution of his coins and inscriptions.

As Vāsishṭhīputra Puḷumāvi was the son and successor of Gautamīputra Śātakarṇi (*c.* A.D. 106–130) and a contemporary of Rudradāman (A.D. 150), and as he is known from an inscription to have reigned for at least 24 years, his date is *c.* A.D. 131–155.

[3] G. Yazdani, 'Excavations at Kondapur', *Annals Bhand. Orient. Res. Inst.*, XXII, 180; pl. XIV.

[4] V. V. Mirashi, 'A new hoard of Sātavāhana coins from Tarhala (Akola District)', *Journ. Num. Soc. Ind.*, II, 83f.; pl. VIII.

7. Same as no. 6. Inscription: *Sadakanam Kaḷalā[ya Maha]raṭhisa.*
Size 1"; wt. 8·552 gm.
Condition—good. Ch. 43 AI-143, stratum 7.
8. Same as no. 6. Inscription: *Sadakaṇa [Ki]ḷalā[ya] Ma[hāra]ṭh[i]sa.*
Size 1·1"; wt. 6·615 gm. Condition—pitted and defaced. Ch. 43 B-101, stratum 7.
9. Same as no. 6. Inscription: ... *dakanaṁ Kaḷalāya Mahāraṭh* ...
Size 1·07"; wt. 10·995 gm. Condition—very good. Ch. 43 AI-149, stratum 8.
10. (pl. CXXVII, 10.) Same as no. 6, Inscription: *Sedakaṇa Kaḷalāya Maharaṭhisa.*
Size 1·1"; wt. 11·812 gm. Condition—excellent. Ch. 43 BI-68, stratum 7B = 8.
11. Same as no. 6. Inscription: *Sadaka[ṇa] Kiḷalāya Mahāraṭhisa.*
Size 1·1"; wt. 10·197 gm. Condition—good but slightly deformed. Ch. 43 BI-92, stratum 8.
12. (pl. CXXVII, 12.) Same as no. 6, Inscription: *Sadakaṇa Kaḷal[ā]ya Mahāraṭhisa.*
Size 1·05"; wt. 9·447 gm. Condition—excellent. Ch. 43 BI-93, stratum 8.
13. Same as no. 6 but highly corroded. Inscr. completely defaced.
Size at least ·96"; wt. 4·913 gm. Ch. 43 AI–188, stratum 9.
14. Probably same as no. 6. Inscription: ..... *[ya] Ma[ha]* .....
Size about 1"; wt. (fragmentary) 2·870 gm. Condition—broken and mutilated with worn-out rev. Ch. 43 BI-100, stratum 10.

Variety *b*

15. (pl. CXXVII, 15.) *Obv.* Same as Var. *a*. Inscr.: *Sadakaṇa Kaḷalāya Mahāraṭhisa.*
Rev. Crescent on hill, consisting of six arches in three tiers, with a wavy line (river-symbol) below; l., triangle-headed standard over the 'double-fish' symbol (fig. 50, 5); r., *nandipada* over the 'double-fish' symbol; below, *svastika* l. and *śrīvatsa*-symbol r.
Size 1·15"; wt. 16·34816 gm. New variety. Note the double-fish symbol which is analogous to a design occurring on roughly contemporary sculptures from Mathurā.[1] Condition—excellent. Ch. 43 AI-20, stratum 7.

Sadakana Chuṭu-Kanha Mahārathi

16. (pl. CXXVII, 16.) *Obv.* Humped bull standing l. Inscr.: *Sadakana [Chaṭa-Ka]nhasa Maharaṭhisa.*
Rev. l., tree within railing; r., crescent on hill of six arches in three tiers; a new symbol (fig. 50, 6) in between.
Size ·9"; wt. 5·741 gm. New type. The new symbol (fig. 50, 6) seems to be an abbreviated triangle-headed standard. Condition—worn but fair. Ch. 43 ZI-69, stratum 7.
17. (pl. CXXVII, 17.) Same as no. 16. Inscr.: *Sadakana [Cha][ṭa*]-[Ka]nhasa [Ma][hara*]ṭh[i]sa.*
Size ·95"; wt. 7·30945 gm. Condition—worn but fair. Ch. 43 AI-86, stratum 7.

Sadakaṇa Kana. Mahāraṭhi-puta

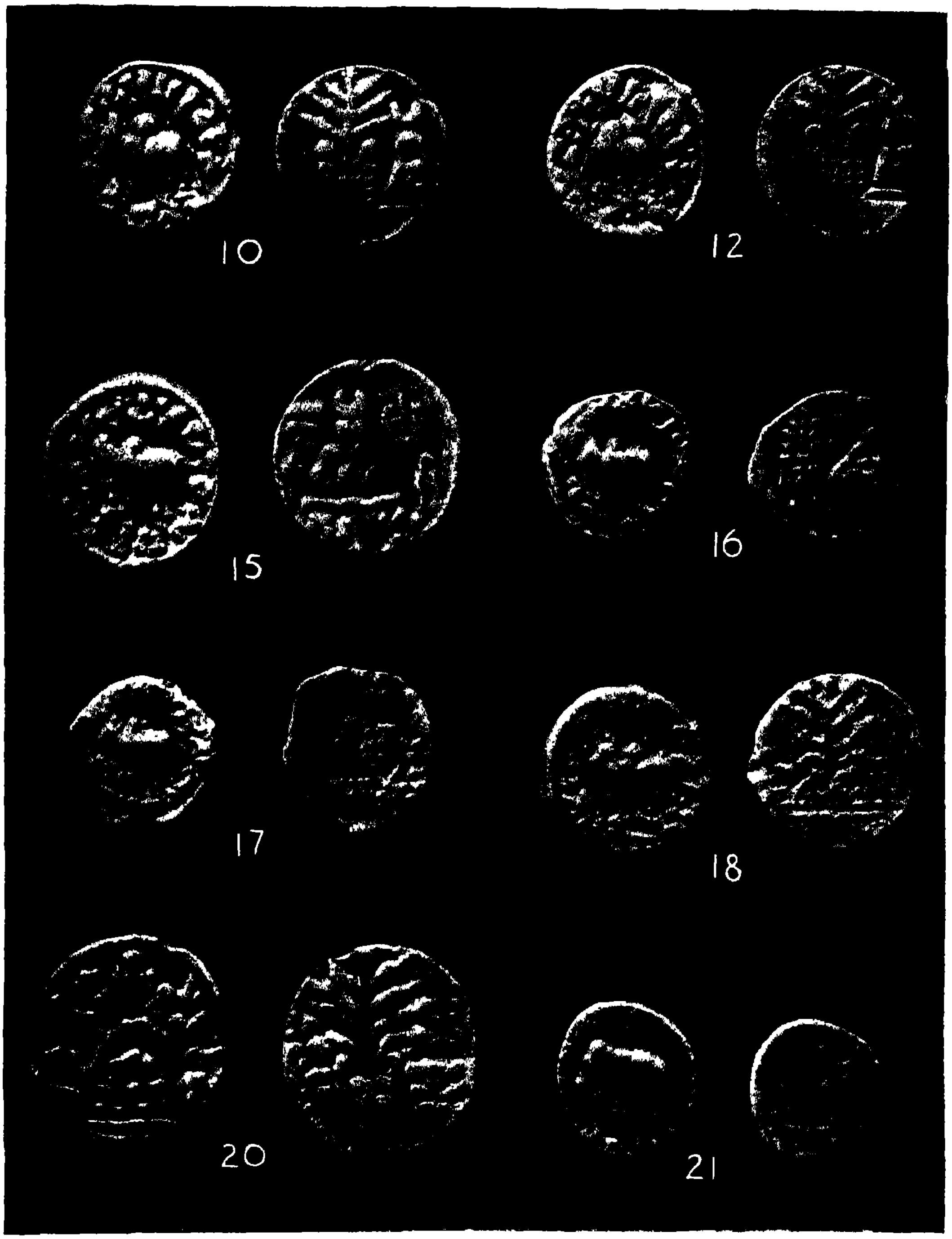
18. (pl. CXXVII, 18.) *Obv.* Humped bull standing l. Inscr.: *Sadakaṇa Kana.sa Maharaṭh[i]-putasa.*
Rev. Tree on a hill of five arches in two tiers with a line beneath; l., indistinct symbol; r., symbol illustrated in fig. 50, 7.
Size 1·1"; wt. 11·981 gm. New type. Condition—slightly worn but fair. Ch. 43 AI-212, stratum 8.

An anonymous Mahāraṭhi chief

19. *Obv.* Humped bull standing r. Inscr.: .... *[Ma]haraṭhi* ...
Rev. l., tree within railing; r., crescent on hill of three arches in two tiers; below, indistinct traces of other symbols.
Size 1"; wt. 6·905 gm. Only known coin of the Mahāraṭhis showing bull standing right on obv. Condition—worn out by long circulation. Ch. 43 AI-26, stratum 6.

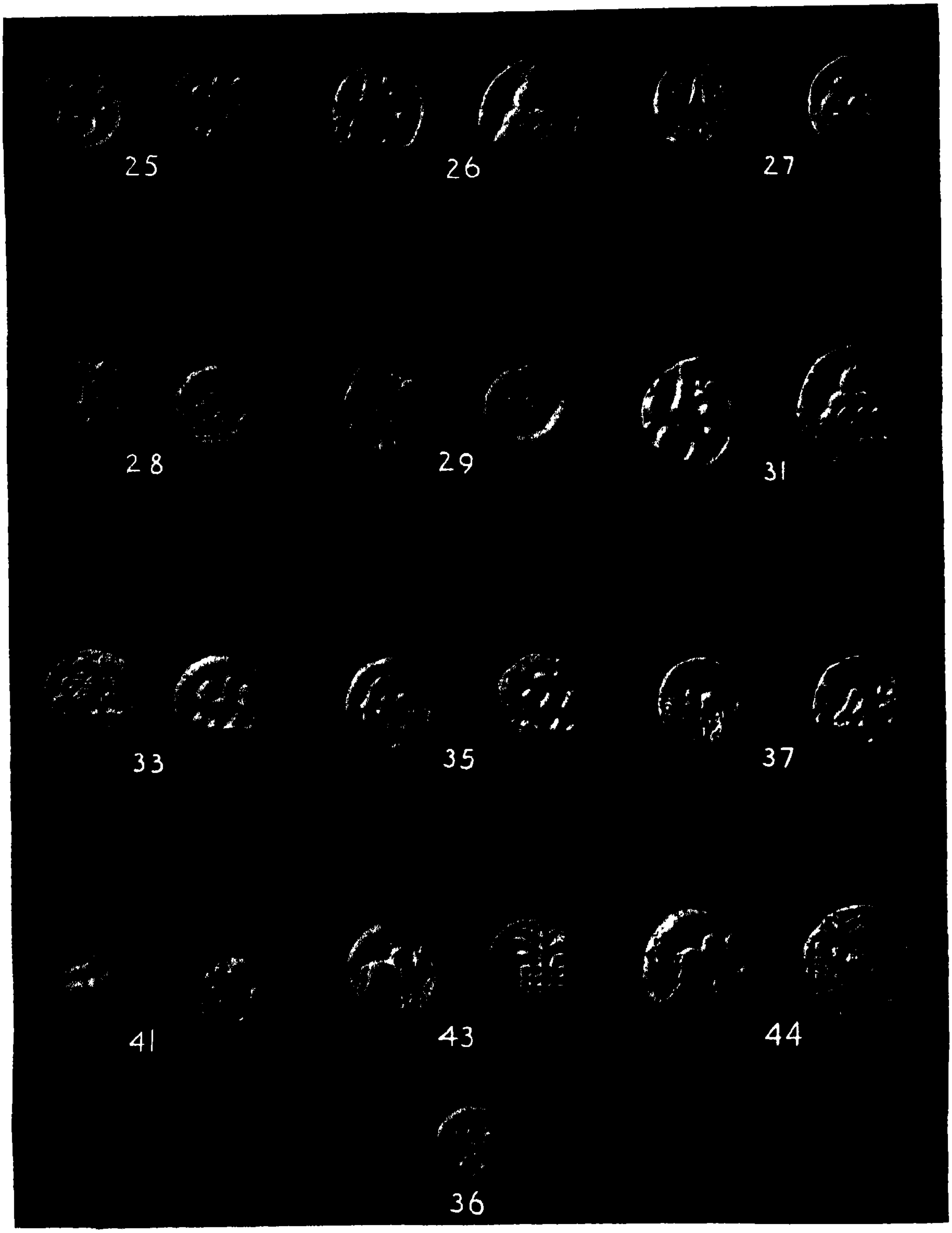
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[1] V. S. Agrawala, 'Mathura Āyāgapaṭṭas', *Journ. U.P. Hist. Soc.*, XVI, part 1, figs. 1 and 2.



Chandravalli: Sātavāhana coins. $\frac{1}{1}$

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Chandravalli: Sātavāhana coins.

Chutu Kaḷānanda

(Same as Rapson, p. 59, pl. VIII, G.P. 2, found at Karwar in North Canara District.)

20. (pl. CXXVII, 20.) *Obv.* *Chaitya*, consisting of two tiers of small arches and one of large arch, with a line (river-symbol) below. Inscr.: *Raño Chuṭu Kaḷeṁnaṁdasa.*
Rev. Tree within railing; l., *nandipada* over *svastika*; r., symbol illustrated in fig. 50, 8 over triangle-headed standard.
Size 1·25″; wt. 16·848 gm. Note the legend shows *ḷeṁ* instead of *ḷā*. Condition—very good. Ch. 43 BI-98, Pit A = stratum 6.

Inscribed coins of uncertain attribution

21. (pl. CXXVII, 21). *Obv.* Elephant standing l.; above, bow fitted with arrow pointing l. Inscr. *[Raño] . . . . . ṇa . . . . .*
Rev. Crescent on hill of three arches in two tiers with tree on l.; below, river-symbol represented by railing with a wavy line.
Size ·93″; wt. 7·040 gm. New type. Condition—obv. fair but major portion of the legend off the flan; rev. slightly worn. Ch. 43 AI-156, stratum 6.
22. *Obv.* Defaced quadruped standing l. Inscr.: . . . . . *sa* . *Kana* . . . . .
Rev. l., crescent on hill of six arches in three tiers with wavy line (river-symbol) beneath; r., tree within railing.
Size ·82″; wt. 5·060 gm. New type. Condition—worn. Ch. 43 AI-28, stratum 5.
23. *Obv.* Design defaced. Inscr.: . . . . . *S[ā]taka* . . . . .
Rev. Defaced.
Size ·7″; wt. (fragmentary) 2·265 gm. The coin was perhaps similar to Rapson, pl. VIII, 164–177 with elephant on obv. and Ujjain symbol on rev. Condition—mutilated and highly corroded. Unstratified. Ch. 45 A_2-52.
24. *Obv.* Defaced.
Rev. Indistinct. Ujjain symbol.
Size ·7″; wt. (fragmentary) 2·325 gm. Condition—broken and highly corroded. Unstratified. Ch. 45 A_2-105.

Uninscribed coins

Type A

(Same as Rapson, pl. VIII, 207, found in the Āndhra-deśa between the rivers Krishṇā and Godāvarī.)

25. (pl. CXXVIII, 25.) *Obv.* *Nandipada.*
Rev. *Śrīvatsa*-symbol.[1]
Size ·64″; wt. 3·150 gm. Condition—good. Ch. 43 AI-214, stratum 9.

Type B, variety *a*

26. (pl. CXXVIII, 26.) *Obv.* *Nandipada.*
Rev. Crescent on hill of eight arches in three tiers.
Size ·71″; wt. 5·305 gm. New type. Condition—excellent. Ch. 43 ZI-70, stratum 7.

Type B, variety *b*

27. (pl. CXXVIII, 27.) *Obv.* *Nandipada.*
Rev. Crescent on hill of three arches in two tiers with a line beneath.
Size ·64″; wt. 2·660 gm. New type. Condition—fair. Ch. 43 ZI-81, stratum 9.

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[1] This has been designated the '*nāga-symbol*' by Rapson.

Type B, variety *c*

28. (pl. CXXVIII, 28.) *Obv.* *Nandipada.*
Rev. Crescent on hill of six arches in three tiers with a pellet in each arch.
Size ·55″; wt. 2·5583 gm. New type. Condition—worn but fair. Ch. 43 AI-102, stratum 8.
29. (pl. CXXVIII, 29.) Same as no. 28.
Size ·55″; wt. 2·2395 gm. Condition—slightly mutilated but fair. Ch. 43 AI-174, stratum 8.
30. Same as no. 28.
Size ·53″; wt. 2·910 gm. Condition—worn and pitted. Unstratified. Ch. 45 A_2-118.

Type B, variety *d*

31. (pl. CXXVIII, 31.) *Obv.* *Nandipada.*
Rev. Hill of eight arches in three tiers with a line beneath.
Size ·75″; wt. 5·950 gm. New type. Condition—very good. Unstratified. Ch. 44 A_1-89.

Type C, variety *a*

32. *Obv.* Hill of six arches in three tiers.
Rev. *Śrīvatsa*-symbol.
Size ·65″; wt. (fragmentary) 2·755 gm. New type. Condition—mutilated and defaced. Ch. 43 AI-118, stratum 8.
33. (pl. CXXVIII, 33.) Same as no. 32.
Size ·64″; wt. 3·053 gm. Condition—good. Ch. 43 AI-173, stratum 9.

Type C, variety *b*

34. *Obv.* Hill of six arches in three tiers with a pellet in each arch; beneath, traces of a line.
Rev. *Śrīvatsa*-symbol.
Size ·6″; wt. 2·336 gm. New type. Condition—worn out. Ch. 43 ZI-82, stratum 9.

Type D

35. (pl. CXXVIII, 35.) *Obv.* Hill of eight arches in three tiers.
Rev. A new symbol (fig. 50, 9.)
Size ·58″; wt. 2·597 gm. New type. The reverse symbol, of which the upper limb consists of a triangle-headed standard, is not known to occur on any Āndhra coins. Condition—very good. Unstratified. Ch. 44 AI-5.

Type E

36. (pl. CXXVIII, 36.) *Obv.* Defaced.
Rev. A new symbol (fig. 50, 10) which seems to be a combination of taurine and *nandipada*.
Size ·54″; wt. 2·531 gm. New type. Condition—pitted and worn. Ch. 43 AI-103, stratum 8.

Type F, variety *a*

37. (pl. CXXVIII, 37.) *Obv.* Humped bull standing l.
Rev. Crescent on hill of six arches in three tiers; l., triangle-headed standard; r., *svastika.*
Size ·59″; wt. 1·575 gm. New type. Condition—slightly mutilated but fair. Ch. 43 BI-89, stratum 8.
38. Same as no. 37.
Size ·59″; wt. 1·647 gm. Condition—worn. Ch. 43 BI-90, stratum 8.

Type F, variety *b*

39. *Obv.* Humped bull standing l.; crescent above.
Rev. Crescent on hill of six arches in three tiers.
Size ·43″; wt. ·710 gm. New type. Condition—worn. Ch. 43 AI-49, stratum 5.

Type F, variety *c*

40. *Obv.* Humped bull standing r.
Rev. Crescent on hill of six arches in three tiers; l., blurred triangle-headed standard; r. *svastika.*
Size ·53″; wt. 2·184 gm. New type. Condition—worn but fair. Ch. 43 ZI-59, stratum 6.

Type F, variety *d*

41. (pl. CXXVIII, 41.) *Obv.* Humped bull standing r.
Rev. Confused jumble consisting of crescent on hill and lower part of tree within railing.
Size ·46″; wt. (fragmentary) ·915 gm. New type. Condition—mutilated but fair. Unstratified. Ch. 45 A_2-164.

Type G, variety *a*

42. *Obv.* Humped bull standing r.
Rev. l., tree within railing; r., *nandipada.*
Size ·54″; wt. 1·705 gm. New type. Condition—worn but fair. Ch. 43 BI-99, Pit A = stratum 6.
43. (pl. CXXVIII, 43.) Same as no. 42.
Size ·63″; wt. 3·165 gm. Condition—excellent. The *nandipada* on rev. is off the flan. Ch. 43 BI-100, stratum 7.
44. (pl. CXXVIII, 44.) Same as no. 42.
Size ·72″; wt. 5·988 gm. Condition—good. Ch. 43 ZI-72, stratum 8.

Type G, variety *b*

45. *Obv.* Humped bull (head off the flan) standing r.; beneath indistinct symbol (hill?).
Rev. Tree within railing.
Size ·54″; wt. 1·060 gm. New type. Condition—worn. Ch. 43 BI-91, stratum 8.

PART IV.—APPENDICES

APPENDIX A

The distribution of pointed-butt polished stone axes in India

(Map, fig. 51)

Save for occasional reference to the distinctive 'shouldered' axes of the north-east, no study has yet been made of the polished stone axes of India. By far the most abundant type has a pointed butt, as have all the examples from Brahmagiri. Alongside this common feature, however, are others which, on further research, may be found significant either in a chronological or a geographical sense. Attention has been drawn above, for example, to the presence of a flat-sided type or sub-type in the earlier strata of the Brahmagiri series; and a detailed enquiry, based upon careful excavation, may reveal other distinctive features.

Meanwhile, a provisional list is here appended and mapped of the pointed-butt type as a whole, without differentiation. The fortuitous character of this map must be emphasized. The absence of axes from large areas, notably Central India, may well be due to the vagaries of the modern collector rather than to those of the ancient fabricator; particularly since numerous vaguely recorded (and unmapped) sites from Assam suggest a north-east to south-west orientation for the culture. It is to be hoped, however, that the publication even of a map so inadequately founded may stimulate the collection and recording of these implements. Whilst the scientific excavation of appropriate sites is essential to a substantive advance of knowledge, surface-finds have also a considerable value in the present rudimentary state of research.

ABBREVIATIONS

Bruce Foote ..	.. Bruce Foote, R., *The Foote Collection of Indian Prehistoric and Protohistoric Antiquities: Notes on their Ages and Distribution* (Government Museum, Madras, 1916).
Coggin Brown	.. Coggin Brown, J., *Catalogue of Prehistoric Antiquities in the Indian Museum at Calcutta, Archaeological Survey of India* (Government Central Press, Simla, 1917).
A.S.I.R. ..	.. Archaeological Survey of India, *Annual Reports* (Superintendent of Government Printing, Calcutta).
J.A.S.B. ..	.. *Journal of the Asiatic Society of Bengal.*

A. MADRAS PRESIDENCY

1. Anantapur district, from Emamoompur; Indian Museum, Calcutta.
2. Anantapur district, from Guntākal; Indian Museum, Calcutta.
3. Bellary district, from a site north-east of Ādōni; Indian Museum, Calcutta.
4. Bellary district, from Gadiganuru; Bruce Foote, p. 199, pl. 3.
5. Bellary district, from the Kapgal Hill; Coggin Brown, p. 75.
6. Bellary district, from Nandavaram; *A.S.I.R.*, 1930–34, pl. CXXVIII.
7. Bellary district, from the Peacock Hill, 4 miles north-east of Bellary; Coggin Brown, p. 73, pl. VI.
8. Bellary district, from Raidrug; *A.S.I.R.*, 1930–34, pl. CXXVIII.
9. Chingleput district, from Perumbair. Site omitted from the map, fig. 51.
10. Guntur district, from Amarāvati. Site omitted from the map, fig. 51.
11. Guntur district, found in 1944 about 5 miles from Nāgārjunīkonḍa on the road to Macherla.
12. North Arcot district, Vellore Tāluk, from Tulleh; Coggin Brown, p. 69, pl. V.
13. Salem district, Krishnagiri Tāluk, from Uttāngiri; information from Mr. K. Narayan Iyengar, Curator, Mysore Government Museum, Bangalore.
14. Salem district, from the Shevaroy Hills; Coggin Brown, p. 70, pl. V.
15. Salem district, Tirapatur tāluk, from Mangalam; Coggin Brown, p. 70, pl. V.
16. Salem district, from Yellagiri; *A.S.I.R.*, 1930–34, pl. CXXVIII.
17. Salem district, site not named; Indian Museum, Calcutta.
18. South Arcot district, from the Javadi Hills; *A.S.I.R.*, 1930–34, pl. CXXVIII.
19. South Arcot district, from Tiruvakkarai, an urnfield about 7 miles west of Pondicherry.
20. Tanjore district, Kumbakonam tāluk, Aduturai; *Madras Mus. An. Rep.*, 1936.

B. FRENCH INDIA

21. Arikamedu, near Pondicherry; *Ancient India*, no. 2 (1946), p. 104.

C. MYSORE STATE

22. Bangalore district, from Sāvandurg, 22 miles west-south-west of Bangalore; information from Mr. K. Narayan Iyengar.
23. Chitaldrug district, from Brahmagiri.
24. Chitaldrug district, from Chandravalli; Mysore Government Museum, Bangalore.

D. HYDERABAD STATE

25. Raichūr district, from Anandgal; information from Khwaja Muhammad Ahmad, Director of Archaeology, Hyderabad.
26. Raichūr district, from Anegandī opposite Hampī; Indian Museum, Calcutta.
27. Raichūr district, from Kautal; information as for no. 25.
28. Raichūr district, Kotegal; information as for no. 25.
29. Raichūr district, from Māski; *Annual Report of the Archaeological Department, Nizam's Dominions*, for 1936-37 (published 1939), pp. 14-15, pl. X.

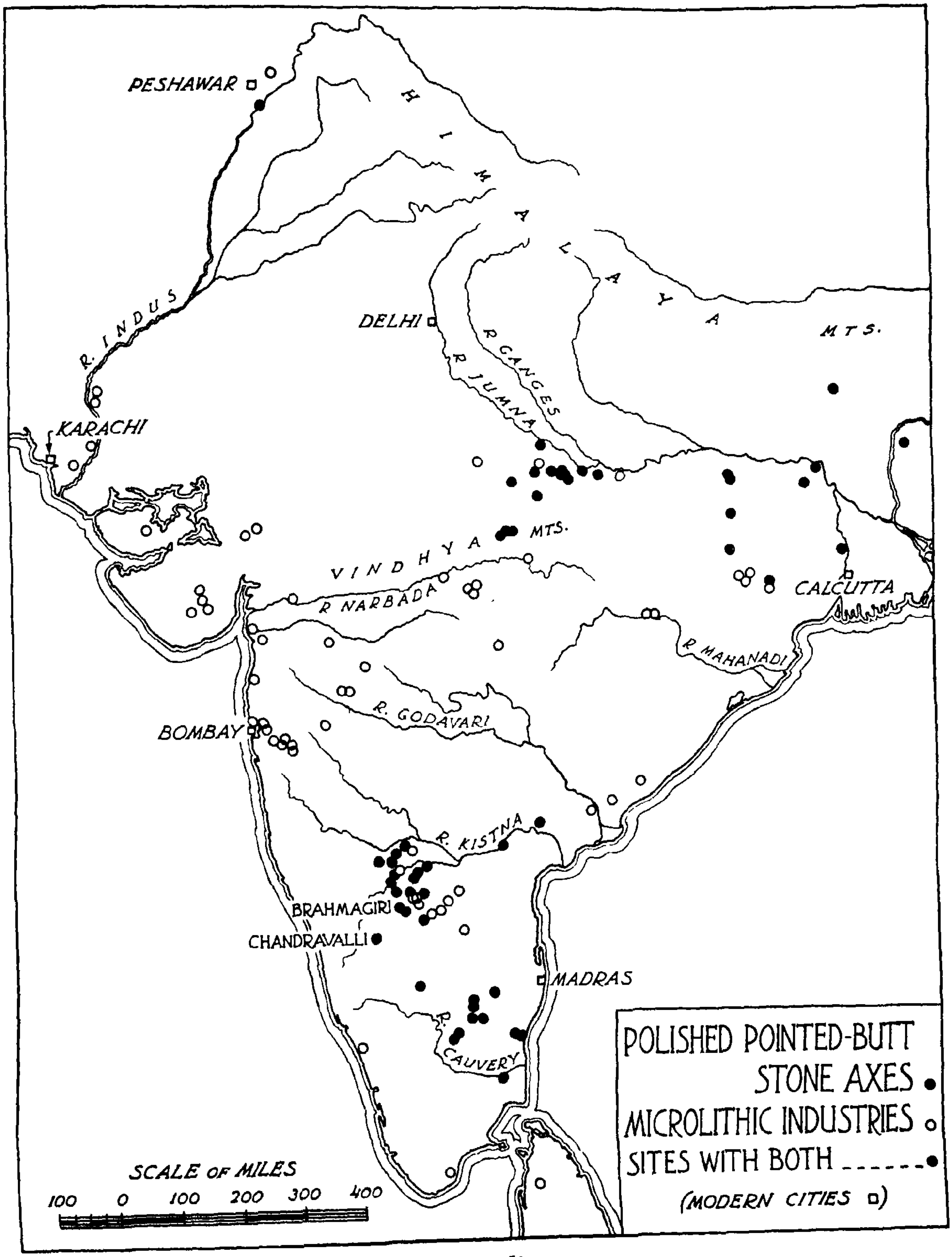


FIG. 51
(Add microlithic site at Jalahalli, Bangalore.)

30. Raichūr district, from Rodalkoṇḍi; information as for no. 25.
31. Warangal district, from Matūr, 27 miles south-east of Khammamett; *J.A.S.B.*, LVI, pt. II, no. 3 (1887), p. 265.

E. CENTRAL PROVINCES

32. Saugor district, from Damoh; Coggin Brown, p. 84.
33. Saugor district, from Garhī Morilā; Coggin Brown, p. 84.
34. Saugor district, from Buhuterāi near Damoh; Coggin Brown, p. 103.

F. CENTRAL INDIAN STATES

35. Chhatarpur State, from Golganj; Coggin Brown, p. 85.
36. Pannā State, from Jhannā, near Pannā town; Coggin Brown, p. 82.

G. UNITED PROVINCES

37. Allahabad district, from Garhwā; Coggin Brown, p. 85.
38. Allahabad district, from Kauśāmbī; Patna Museum.

39 to 58. Bāndā district; the district has been explored by many, amongst whom W. Theobald (cf. *J.A.S.B.*, 1862, p. 323) and J. Cockburn (cf. *J.A.S.B.*, 1879, p. 137–141) deserve special mention. Most of the specimens collected are now in the Indian Museum, Calcutta, while some examples are in the Baroda and Madras Museums also. The following twenty sites have yielded 'pointed-butt' polished stone axes: Duranda, Manikpur, Karvi, Agrahonra, Bagrahi, Gurha, Gaorikar, Girwa, Garohapa, Kasaha, Loreta, Muraol, Nuseni, Pungari, Rāmgarh, Marphā, Risri, Shāhpur, Terayan and Āchā; Coggin Brown, pp. 70–87, pls. V and VI.

59. Hamīrpur district, from Chandrawārā; Coggin Brown, p. 85.

H. BIHAR

60. Hazāribāgh district, site not mentioned; Indian Museum, Calcutta.
61. Patna district, from Ghōrā Kaṭorā near Rajgir; Patna Museum.
62. Patna district, from Nālandā; Patna Museum.
63. Rānchi district, from a site near Rānchi town; Coggin Brown, p. 127.
64. Santāl Parganas, from Sāhebganj on the bank of the Ganges; Coggin Brown, p. 130.
65. Santāl Parganas, site not named; Patna Museum.
66. Singhbhūm district, site not named; Patna Museum.

(*Note.*—The specimens in the Patna Museum have been examined by Mr. A. Ghosh.)

I. WEST BENGAL

67. Darjeeling district, site not named; Patna Museum.
68. Nadiā district, from a site near Nadiā town.

J. ASSAM

(Information from Mr. J. P. Mills, C.I.E., I.C.S.)

69. Garo Hills district ; fairly numerous.
70. Cāchār district ; numerous. Not shown on map, fig. 51.
71. Nāgā Hills district, around and north of Kohuna ; very numerous. Not shown on map, fig. 51.

K. WEST PUNJAB (PAKISTAN)

72. Attock district, from the bank of the Indus opposite Shādīpur, 21 miles south-west of Attock; found in May 1880 by W. Theobald of the Geological Survey of India; *Records of the Geol. Surv. of India*, XIII, 176; also Coggin Brown, p. 120, pl. VII.

L. BURMA

73. The Indian Museum, Calcutta, collection also contains some 'neolithic' celts from Burma. The characteristic Burmese specimens are 'shouldered', but pointed-butt examples have also been obtained. The sites are not named.

APPENDIX B

The distribution of Indian microlithic industries

(Map, fig. 51)

The distribution of microlithic industries in India was tabulated in 1938 by Col. D. H. Gordon,[1] and the only notable additions to his list are the Gujarat sites carefully excavated in recent years by Dr. H. D. Sankalia,[2] Māski in Hyderabad State,[3] the northern bank of the Narbada north of Rājpiplā, Sawyerpura in the Tinnevelly district,[4] Jalahalli near Bangalore,[5] and Brahmagiri itself. The recorded sites extend from Karachi in Sind on the west to Serāi Kalā in Bihar on the east; and from Jamāl Garhi (Mardān tahsil) in the North-West Frontier Province to Tinnevelly in the south. With even more emphasis than in the case of the polished stone axes (which at least have constant and evolved features), it must be stated that, within the vast geographical framework indicated, the known distribution of these crude chips of jasper, chert, chalcedony or quartz is at present governed largely by chance. Parts of western India have been more extensively examined than have other regions which, for all we know, may prove to be equally rich in microlithic sites.

Nor are the implements themselves, for the most part, of sufficiently evolved types to enable us to group them with any assurance typologically. The trapezoidal and triangular forms scarcely occur at all, and the crescent is rare (one poor specimen only, for instance, at Brahmagiri). A vast majority of the implements are simple flakes with little or no retouching. Their small size may, as Gordon observes, be 'compulsory, owing to the small size of the stone available'. On the other hand, the choice of this small material was a deliberate act of a given phase or phases, so that the argument from material does not carry us far. And if a typological classification is difficult, a chronological one is no less so. On admittedly sketchy evidence, Gordon thought that the Māski microliths might date from the third century B.C. to the first century A.D. At Brahmagiri, this is precisely the period of the Iron Age megalithic culture which *succeeded* the microlithic industry. In the circumstances the difference of date is not important; but at Langhnāj in Gujarat Dr. Sankalia found the main series of his microliths in pre-pottery layers and in association with mineralized human skeletons. This looks like an earlier dating, though nothing approaching an absolute chronology is available for the site. Much further digging of a peculiarly exacting kind is necessary before conjecture becomes worth while.[6]

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1 *Man*, 1938, no. 19. See also a list of Godāvarī sites by L. A. Cammiade in *Man in India*, IV (1924), 83ff.

2 *Investigations into the Prehistoric Archaeology of Gujarat* (Baroda State Press, 1946); 'The second Gujarat Prehistoric Expedition; a preliminary Account of the Search for Microlithic Man in Gujarat', *New Indian Antiquary*, VII (1944), no. 1. Also *Preliminary Report on the Third Gujarat Prehistoric Expedition and Human Remains discovered so far* (The Times of India Press, Bombay, 1945)

3 *An. Rep. of the Arch. Dept. of the Nizam's Dominions*, 1935-36 (pub. 1938), p. 23 and pl. III; D. H. Gordon in *Journ. Roy. As. Soc. Bengal*, IX (1943), 88ff.

4 A. Aiyappan in *Spolia Zeylanica*, XXIV (Colombo, 1945), pt. 2.

5 K. R. U. Todd, *Man*, 1948, no. 27. (Omitted from map, fig. 51.)

6 For a summary of the present position, see V. D. Krishnaswami in *Ancient India*, no. 3 (1947), pp. 36-7.

APPENDIX C

The date of megalithic tombs in India

The Brahmagiri excavations have indicated (above, p. 200) the middle of the first century A.D. as the *terminus ante quem* for this typical group of port-holed megalithic cists, and it has been inferred that a majority of them, at this site, were built during the last two centuries B.C. The very few other chronological data from India in respect of megalithic tombs are quickly summarized, and are as follows :—

1. At Sulur, 7 miles east of Podanur Junction in the Palladam Taluk of the Coimbatore District, Madras Presidency, is an important group of megalithic cists, mostly of port-holed type and surrounded by stone circles. In excavating one of these tombs, Col. W. H. Tucker found deep down in it, with glass, steatite and carnelian beads and fragments of an iron dagger, a bronze coin identified by Dr. John Allan of the British Museum as a coin of Eran, struck in the third or second century B.C. This is the best evidence for the dating of a megalithic tomb in India, other than at Brahmagiri. See the 'India' number of *Man*, 1930, no. 134 (p. 172).

2. A former Collector of Coimbatore named Garrow, in a letter, dated 1817, alludes to a silver coin of Augustus found, perhaps with a number of irregularly shaped punch-marked coins, in a *Pandu Culi* (megalithic tomb). According to other accounts the punch-marked coins were found in another tomb. See *Madras Journ. of Literature and Science*, XIII (1844), 214; *Ind. Antiquary*, II (1873), 241; *Num. Chron.*, I, VI (1843-4), 162; *Journ. Bombay Branch Roy. As. Soc.*, I (1843), 293.

3. In a port-holed cist excavated by Mr. Govinda Menon at Tiruvilvamala, Cochin State, were found pots decorated with a white or yellow curvilinear pattern under a russet slip (see *Man*, 1937, no. 179). This technique and decoration occur abundantly in the Coimbatore District but have not been dated. On the other hand, the very distinctive technique is identical with that of the yellow-painted 'Āndhra' pottery of Chandravalli and Brahmagiri (above, pp. 236 and 278), where, however, rectilinear patterns were in vogue and curvilinear patterns absent. The Āndhra pottery seems to begin in the earlier half or middle of the first century A.D. It cannot be unrelated to the Coimbatore pottery. but exact chronological equation between the two cannot be assumed without further evidence.

4. A further piece of evidence of a less direct kind is the recent (1947) and unpublished discovery at Arikamedu (Pondicherry) of pottery of the distinctive 'Megalithic' fabric intermingled with typical 'Arikamedu' pottery of the early or middle first century A.D. See above, p. 273. A similar overlap is now recorded at Chandravalli. In both cases a majority of the pottery-types differ from those from the Brahmagiri megaliths, but the identity of fabric suggests a significant interrelationship.

Of the four scraps of evidence detailed above, the first and, to a less extent, the last carry some positive weight, and all are consistent with the Brahmagiri dating.

APPENDIX D

The distribution of cists with port-hole in India

(i) *General factors.*

Megalithic cists, often with port-holes, are very numerous in Peninsular India between 10° and 18° of latitude. Below 10°, in the tip of the Peninsula south of Madurā, they appear to be absent, though vaguely related urn-fields such as the celebrated example at Ādichanallur near Tinnevelly are present there. Above 18° there are likely to be unrecorded

cists and port-holes, extending perhaps as far north-eastwards as the granite exposures, i.e. to the neighbourhood of 25° of latitude. The appended list of known sites (p. 305 and fig. 1), however, does not reach in that direction beyond the vicinity of Hyderabad city in the Nizam's Dominions.

Even within these limits, our present knowledge of the distribution and variations of the type in the Deccan and the South is insufficient to support detailed theory. Ground-survey and excavation are alike lacking. The latter is as necessary as the former, for without excavation it is usually impossible to ascertain whether or not a port-hole is present. Thus, although the whereabouts of many thousands of South Indian megaliths is actually known, the map-picture of the port-holed type is still to some extent fortuitous. The ground-survey of megaliths now being prepared by the Archaeological Survey of India will therefore, it is to be hoped, be followed by carefully distributed excavation. Meanwhile, the map here published indicates the known distribution of port-holed cists in general terms.

The location of megalithic tombs in Central and South India is presumably in large measure conditioned materially by that of the fissile granite and the easily-cut laterite from which they are most readily constructed; they 'spill over' into limestone and sandstone formations but are not characteristic of them. Within these main geological limits, the simpler port-holed cists occur largely on the Deccan plateau and its southern extension in Mysore State, whilst the more elaborately planned tombs with port-holed partitions and occasionally with short approach-galleries or porches—approximating sometimes to the passage-graves and sometimes to the gallery-graves of the European nomen.lature—appear to prefer the southern coastal plain, as in Pudukkottai State.[1] This seemingly differential distribution is noted here provisionally, but until we know something about the relative dating of these two groups it would be foolish to theorize. In particular, we must wait patiently until the relationship of megalithic tombs with the arterial river-valleys which link the plateau with the coasts becomes clearer upon the map.

Outside the Peninsula there is no evidence for port-holed cists in India. But there is another region of potential importance in this context, one to which the archaeologists of Pakistan and India may be invited to give some special attention. In the fifties of the nineteenth century a Captain Preedy, then Collector of Karachi, travelled about his district with open eyes and, amongst other things, noted that 'stone graves ..... are found in great numbers throughout the hilly district which extends along our western frontier. They are usually met with in elevated positions, and consist of three or four large stones set on edge, with a flat stone placed horizontally on the top. There would appear to have been no uniform rule observed as to the direction in which these graves were placed .... I had the pleasure of pointing out one of these groups to you a few days ago, on the hills near Waghodur, and I think we both agreed that, with the exception of the hole in one of the side stones or walls, the graves exactly resemble those described by Captains Taylor and Congreve' (in the Deccan and the Nilgiris).[2] H. B. E. Frere, then Commissioner in Sind, adds that 'cairns and cromlechs, such as are described by Captain Meadows Taylor, are common on the road to S͟hāh Billāwal, in Baluchistan, and also in the hills on the direct road from Karāchi to Kotrī. They are generally known as Kaffirs' graves'.[3] Waghodur lies 20 miles east of Karachi, and if Preedy's circumstantial observation is correct, we appear to have here, near the mouth of the Indus, an outlying group of megalithic cists

[1] It may be suspected that the technical facilities presented to the stone-cutter by the soft coastal laterite contributed to this elaboration.

[2] *Journ. Bombay Branch of Roy. As. Soc.*, V (1857), 353f.; whence H. Cousens, *The Antiquities of Sind*, Arch. Sur. India, Imperial Series, XLVI (1929), 44-5.

[3] *Journ. Bomb. Br. R.A.S.*, V, 349.

which *may* constitute an important addition to our distribution-map. I have neither seen these cists myself nor know any one who has—they have not been looked for recently, and at the time of writing the political situation is unfavourable to archaeological exploration in Sind.

Between the Peninsula and the Karachi District, vast areas have never been adequately surveyed from this standpoint, and it is likely enough that search will in fact reveal links between the two regions. Meanwhile the utmost caution must be exercised in associating cists or dolmens *without* port-holes with the more specialized type. The most ardent diffusionist could scarcely maintain that all rudimentary stone cists, wherever found, are cousins germane to one another; attention has been drawn above, for example, to the familiar medieval and modern practice of erecting open-ended 'dolmens' (never with port-holes) as simple shrines in many parts of India (pl. CXXVI A)—a practice which may have been suggested by, or even remotely derived from, the ancient burial-cists but has no integral connection with the main problem.

In this non-committal sense, reference may here be made to the recorded occurrence of simple megalithic cists, seemingly without port-holes, in certain other parts of India. Thus Cunningham, who used the word 'cromlech' for these cists, vaguely affirms that cromlechs, cairns and stone circles 'have already been found in the hilly parts of the districts of Delhi, Mirzapur, and Orissa'.[1] This observation has not been confirmed. Cunningham's assistant, A. C. L. Carlleyle, noted within one of four stone circles at Deosa, a village 32 miles east of Jaipur in Rajputana, a cromlech '6 feet square and about 4 feet in height', the walls composed of 'four rough slabs of stone set up on end. The top of the cromlech was imperfectly covered by two narrow slabs'.[2] Today, only a circle of boulders enclosing an erect boundary-stone is to be seen on the site. An earlier observer found small granite and 'slate' cromlechs at Deodhoora, 18 miles south-east of Almora in northern U.P., but they were mostly if not entirely used as shrines and, on the evidence, may be discounted.[3] In the remoter depths of the Himalayan massif, however, authentic burial-cists have been discovered in the Leh valley of Ladakh, near the western border of Tibet. In 1903 and again in 1909 one or more of these graves was opened. The roof was 'more than a yard below the present level of the ground. It consists of large unhewn stones of rectangular shape, each about 1½ yards long and a foot or so broad. The walls consist of large unhewn stones. The grave is about 2 yards long, 1½ yards broad, and at least 6 feet deep.' The contents included objects of iron and bronze, together with pots ornamented with simple designs either 'impressed' or painted in dark red colour and mostly filled with disarticulated human bones. The finder refers to ancient records of the custom of excarnation in the 'Empire of the Eastern Women', i.e. Khotan, Ladakh, the upper Ravi valley and Tibet.[4]

I have insisted upon these outlying occurrences of a megalithic usage, not because they materially change the dimensions of the problem, but in the hope of stimulating a further search for megaliths in North India and of preventing too firm a prejudgment of the issue. Nevertheless, whatever future search may reveal in the North, it cannot now upset the huge

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[1] *Arch. Surv. of India Reports*, I for 1862–65 (Simla, 1871), Introduction, p. xxx.

[2] Ibid., VI for 1871–73, 104ff. At Khera, 4 miles west of Fatehpur Sikri near Agra, U.P., Carlleyle also found flat-topped 'cairns' of 'an irregular rough four-sided shape, with generally sloping sides, and surmounted at the top either by slabs of stone or by the remains or fragments of slabs'. The illustrations do not suggest tombs of our type.—Ibid., p. 14. Recent search on the ground has failed to rediscover these cairns or anything like them.

[3] W. J. Henwood in the *Edinburgh New Philosophical Journal*, New Series (Edinburgh, 1856), pp. 204-5.

[4] A. H. Francke in *Arch. Surv. of India An. Rep.*, 1909-10, pp. 104ff.

preponderance of megalithic cists in the South, particularly of the significant port-holed type.

There is a further element of uncertainty which must not be forgotten at the present stage. Our dating of the port-holed cists is at present based largely upon the evidence of a single site in northern Mysore slightly supported by the evidence of a single find in the Coimbatore District and now perhaps by a little ceramic evidence from Arikamedu and Chandravalli (above, p. 300). If we date our Brahmagiri series mainly within the last two centuries B.C. (above, p. 202), it is to be presumed that other groups are of a somewhat earlier date, and the presumption becomes a certainty if coastal entry can be proved. Once again, excessive generalization from our limited evidence must be avoided.

With these important provisos, I am tempted to indulge for a moment in a speculation which may at any rate serve to stress the need for a further investigation of the little-known Karachi group. Karachi, approximating to the ancient Patala (? Hyderabad in Sind), was the first port of call in India for coastwise and even deep-sea trade with the Mediterranean world, before the fuller use of the monsoon facilitated more profitable direct voyages to the Bombay and Malābār coasts. Of the four successive stages recognized by Pliny in the evolution of this maritime traffic, Karachi (or its equivalent) was the goal of the first two, and the south-western ports were the goals of the second two.[1] The latter were probably not fully developed until the time of Augustus (23 B.C.–A.D. 14), prior to whom the north-western ports must have dominated the scene. But we know almost nothing of the local middleman trade which preceded the organized imperial commerce of Augustus and his successors, and the use of the monsoon-route to Malābār is likely enough to have been familiar to Arab sailors, or some of them, long before the principate.[2] It is in any case sufficiently probable that coastwise traffic down the west coast long preceded the opening-up of the Peninsula by direct voyages.

We have, then, a general picture of Western trade concentrating first upon Karachi and then swinging southwards to the southern Bombay and Malābār seaboard and thence across and around the Peninsula. If it should turn out that we have also megalithic tombs, of a type familiar in the West, on the one hand at Karachi and on the other hand across Peninsular India, the coincidence would become alluring. There are in this composite picture many undetermined factors of time and space which are vital. But on the commercial side the development, whatever its origin and dating in detail, belongs in the main to the three centuries which followed the opening up of the East by Alexander the Great; and now we have in northern Mysore a typical group of Indian megaliths dated within those three centuries. Furthermore, in the critical third century B.C. we have the evidence of the Rock-edicts II and XIII that Aśoka was in close contact with the rulers of the eastern Mediterranean—Antiochos Theos, king of Syria and Western Asia; Ptolemy Philadelphos, king of Egypt; Magas, king of Cyrene; Antigonos Gonatas, king of Macedonia; and perhaps Alexander, king of Epirus. This is a formidable list. Aśoka cites it in relation to his proselytizing activities amongst his 'neighbours', but it is fair to suspect that this high-level neighbourliness had a sound material basis in the form of a trade which may itself be of pre-Aśokan origin. If now in northern Africa or Syria convincing evidence for Iron Age megaliths of the Indian type were forthcoming, the problem would begin to assume a reasonable shape. Much research is needed, however, outside no less than inside India, and in Arabia no less than in the Mediterranean area.

[1] *Nat. Hist.*, VI, 100-1.

[2] W. W. Tarn, *The Greeks in Bactria and India* (Cambridge, 1938), pp. 368ff., prefers a date *c.* 50 B.C. for the development of monsoon-navigation and the diversion of main-line traffic from Karachi to the south-western coast. Finality in the matter is impossible—the transition presumably covered a considerable period (see below).

There are other factors. If the Brahmagiri evidence is at all representative, at some moment little more than a century after the time of Alexander the Great a lavishly equipped Iron Age megalithic culture intruded into the Deccan plateau upon a primitive, mainly stone-using culture with such dramatic suddenness as to imply some strong stimulus. That stimulus was doubtless augmented by local opportunity (above, p. 202), but is unlikely perhaps to have originated wholly within the Peninsula itself; the cultural gap between the Polished Stone Axe folk—whose scattered remains are widespread in the Deccan and South India (see p. 295)—and the Megalith folk is too great to imply any long-standing proximity of the one to the other. Nor can it have come from the north, from that great *officina* of Indian civilization, the Gangetic plain; for there megaliths and the materials for making them are alike absent. Nor can it have come from the north-east or from Indonesia, where port-holed tombs do not occur. It must have come from the north-west, from the mountains or the sea. It may of course be mere coincidence that the known development of Indian international trade followed a similar path. It may be that future exploration will fail to show that the Karachi tombs, if they still exist, are earlier than those of South India, as some of them should be if the analogy from trade-development is valid. I am merely suggesting possibilities for further enquiry, and do not—at present cannot—propound a substantive documented theory.

There is indeed another and fundamental aspect of distribution which underlies the whole of this discussion. I have assumed the possibility of an integral connection between the port-holed cists of India and those of western Asia and Europe, in spite of the wide disparities of time and place. Those disparities, however, and particularly that of time,[1] are not negligible, and, until they are confirmed or resolved by much further exploration, interrelationship remains no more than a possibility or, at the best, a likelihood. A useful, though not necessarily convincing, scepticism is expressed from time to time by writers on the subject. Thus G. E. Daniel, to whom we are indebted for important studies of European megaliths,[2] remarks that 'the megalithic structures of Africa, the Near East, India, Indonesia, and Japan have probably little more in common with the burial chambers of prehistoric Europe than the use of large stones for orthostatic walling and trabeate roofs'. This is a drastic simplification of a complex problem. While Indonesia and the Pacific may well be a separate matter (see above, p. 183), the apparent affinity of the Near Eastern and Indian monuments with those of Europe cannot be so summarily discounted. Without more proof than exists, it is not easy to assume the independent origin of the port-holed cist in regions which, however far apart, have long been interconnected by sea.

(ii) *Cists and dolmens: nomenclature*

In collecting the material upon which the summary map (fig. 1) is based, I made a provisional distinction between *dolmens*, i.e. large cists built on the surface of the ground, and large cists buried wholly or mostly in the ground. This distinction, however, in India as elsewhere, is of no primary importance. There is little doubt that in all cases in India the structure was finally buried up to or even above the capstone either in the ground itself or in a barrow or cairn, generally circular on plan and often outlined by stone blocks, slabs or walling. The cist may be built on the natural surface, or partially buried, or completely buried to capstone-level, or sunk into the ground so that the capstone is several feet

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[1] The European megalithic tombs may mostly be ascribed to 2500–1500 B.C. Africa is an unknown quantity, and Syria requires further exploration. For the whole problem, see Professor Gordon Childe's important article above, pp. 5ff.

[2] *Proc. of the Prehistoric Society*, VI (Cambridge, 1940), 133ff., and VII (1941), 1ff.

below the natural surface. One, though not the only, conditioning factor is that of practicability, the proximity or otherwise of the native rock to the surface and the relative facility with which a pit could be prepared. Deeply buried cists are perhaps a local fashion; for example they occur in some numbers in Hyderabad State (Deccan) [1] but were absent from our Mysore series. On the other hand, an extensive megalith cemetery in the jungle near Savandurg, 22 miles west-south-west of Bangalore in Mysore State, contains examples of free-standing port-holed 'dolmens' intermingled with identical port-holed cists at all stages of submersion down to capstone-level. Here the principle of varying practicability seems to have controlled the situation.

In short, the word 'dolmen' has no scientific validity in India. The character of the megalithic tomb-structure is not materially influenced by its position on or below the surface. Even in the deeply buried cists of Hyderabad (Dn.) the port-hole is sometimes present, although the insertion of the bones and offerings before the lowering of the capstone or capstones into position must usually have been the easier method and the port-hole is consequently absent in a majority of the excavated examples.

On the present map all megalithic port-holed cists are grouped together, irrespective of degree of burial below the natural surface.

(iii) *Provisional list of cists with port-holes in India* (map, p. 180, fig. 1)

The following list, prepared mainly by Mr. V. D. Krishnaswami, contains recorded and some previously unrecorded megalithic cists distinguished by the port-hole opening and generally by a surrounding circle of boulders or slabs. It represents only a small fraction of the total number which further exploration may be expected to reveal, but is sufficiently large to indicate the main areas of distribution. Only in the peripheral regions is an appreciable modification of the map likely to become necessary in the future.

ABBREVIATIONS

A.P.R. ..	.. Annual Progress Report, Archaeological Survey Department, Southern Circle, Madras.
Fergusson ..	.. J. Fergusson, *Rude Stone Monuments in All Countries* (London, 1872).
G.O. ..	.. Government Order.
Meadows Taylor	.. *Megalithic Tombs and other Ancient Remains in the Deccan*, papers by Colonel Meadows Taylor reprinted for the Archaeological Department of Hyderabad State (1941) from the *Journal of the Bombay Branch of the Royal Asiatic Society*, III-IV (1851-52), and the *Transactions of the Royal Irish Academy*, XXIV, pt. III (1862).
Sewell ..	.. R. Sewell, *Lists of the Antiquarian Remains in the Presidency of Madras* (Archaeological Survey of Southern India, Madras, 1882).

A. MADRAS PRESIDENCY

1. Anantapur district, Dharmavaram tāluk, at Moodheguloor village. Meadows Taylor, p. 86.
2. Anantapur district, Kalyāndrug tāluk, at Midigallu village, which is three miles east of Kalyāndrug. *Anantapur Gazetteer*, 1905, pp. 175-6; G.O. nos. 975 Public, 4th Aug. 1913; A.P.R. 1912-13, pp. 52–63. G.O. no. 1321, Public, 23rd October 1913 (Mis.) (not printed).
3. Bellary district, Ādōni tāluk, about a mile S. of Kosigi village, which is about 18 miles N. of Ādōni. Meadows Taylor, p. 55.

[1] E.g. Meadows Taylor, *Megalithic Tombs and other Ancient Remains in the Deccan* (papers collected and republished by the Archaeological Department of Hyderabad State, 1941), pls. X and XI; E. H. Hunt, *Hyderabad Cairns* (Bombay, 1916).

4–7. Bellary district, Rāyadrug tāluk, at Addagoopah, Gollapalle and Mallapuram villages, all about 30 miles S. of Bellary. Meadows Taylor, p. 86; *Journ. Roy. As. Soc. Bombay Branch*, IV (1853), pp. 412, 428; *Trans. Roy. Irish Acad.*, XXIV (1873), Antiquities, pp. 329ff.; A.P.R., 1912-13, p. 42.
8. Chingleput district, Srīperumbūdūr tāluk, Tattanūr village.
9. Chittoor district,[1] Chittoor tāluk, near Kalavagunta village, 5 miles N. of Chittoor. Capt. Newbold in *Journ. Roy. As. Soc.*, O.S., XIII, p. 90; Sewell, p. 155.
10. Chittoor district, Chittoor tāluk, at Paradarāmi village. Sewell, pp. 155-6.
11. Chittoor district, Punganūr tāluk, at Chiri-chinta-vāripalle village. Six circles enclosing cist with portholes.
12. Chittoor district, Punganūr tāluk, at Settipetta village.
13. Chittoor district, Vayalpad tāluk, near Vayalpad village. *Madras Administrative Report*, 1938-39, pp. 178-9.
14.[2] Chittoor district, Palmaner tāluk, Iralabanda village, near Palmaner. *Indian Antiquary*, X (1881), pp. 97–100.
15. Chittoor district, Tiruttani Zemindari tahsil, at Tiruvelangād village.
16. Coimbatore district, Erōde tāluk, Broughnagar village (Nichchampalaiyam). Observations by A. H. Longhurst, 1928.
17. Coimbatore district, Palladam tāluk, Nīlambūr village. *Madras Mail* newspaper, 14th September, 1935.
18. Coimbatore district, Palladam tāluk, Sūlūr village, *Man*, XXX, no. 10, Oct. 1930, p. 171, etc.
19. Cuddapah district, Kamalāpuram tāluk, Palagiri on the left bank of the Mogameruru Nadi, 2 miles W. of the road Vempalle-Erraguntala. *Cuddapah District Gazetteer*, p. 205, plate facing p. 25.
20. Cuddapah district, Siddhavattam tāluk, at Vontimitta village, 8 miles S.E. of Siddhavattam town. A.P.R., 1912-13, pp. 65ff.
21. Guntūr district, Narasarāopet tāluk, near Kamēpalle village. G.O. no. 382, Public, 30th April, 1889, p. 12.
22. Madura district, Kodaikānal tāluk, 14–17 miles from Kodaikanal G.O. no. 1663, 16th Dec., 1887, p. 7.
23. Nilgiri district, Coonoor tāluk, about a mile from Udayarāya fort, which is 5 miles E. of Kotagiri. H. Congreve in *Madras Journ. of Lit. and Sc.*, XIV (1847), p. 123 and pl. 9; Sewell, p. 228. J. W. Breeks: *Primitive Tribes of the Nilgiris*, p. 106, pl. LXXV.
24. Nilgiri district, Coonoor tāluk, Kōtagiri, 17 miles E. of Ootacamund, on the slopes close to the site of the ruined fort of Udayaraya. *Nilgiri Manual*, pp. 237-8.
25. North Arcot district, Ārkonam tāluk, Ariyūr village.
26. North Arcot district, Ārkonam tāluk, Karikāntāngal village (hamlet of Vangapattu).
27. Salem district, Hosūr tāluk, between Mudagherry and Killamungalam villages. Sewell, Appendix, p. xxxii.
28. Salem district, Hosūr tāluk, Uddanapalle, 12 miles S.E. of Hosūr and 9 miles N.W. of Rayakota. H. Congreve in *Madras Journ. of Lit. and Sc.*, 1878, p. 162. Sewell, p. 195.
29-30. South Arcot district, Tirukkoyilūr tāluk, 4 miles from Rirukkoyilur village on the left bank of the Ponnaiyar river near the village of Kollur; another group about 1½ miles from Tirukkoyilūr on the opposite bank of the river about ¾ mile N. of the Arakandanallur temple. *Indian Antiquary*, V (1876), pp. 159, 255.
31. South Arcot district, Gingee tāluk, at Sattiyamangalam village, 7½ miles to the west of Gingee town. In one case, where the cist had been rifled, the easternmost orthostat contained a port-hole 22″ in diameter. The cist measured 5′ 5″×4′ 10″×5′ 2½″.

B. COORG PROVINCE

32. Nanjarajapattana tāluk, Sirangala village (now North Coorg tāluk, Fraserpet Nad), 7½ miles N. by S. of Fraserpet. A. Rea, *List of Architectural and Archaeological Remains in Coorg* (Arch. Survey of India, New Imperial Series, XVII, 1894), p. 7.
33. Yedenalknād tāluk (now South Coorg tāluk), Vīrarājendrapet village. *Proc. As. Soc. Bengal*, 1868, p. 162; Fergusson, p. 472.
34. North Coorg tāluk, Somwarpet Nād, at Doddamolathe village, 3½ miles from Somwarpet. A.P.R., 1916-17, pp. 36-37.

[1] Formerly in North Arcot district.
[2] Formerly in North Arcot district.

C. TRAVANCORE STATE

35. In the hills inhabited by Malayarayana. S. Mateer, *Native Life in Travancore*; L. A. Krishna Iyer in *Modern Review*, March, 1946, p. 185.
36. Perunthalpāra, L. A. Krishna Iyer in *Modern Review*, March, 1946.
37. On the Tea Estate of Thengakkal, 9 miles from Vāndiperiyār, which is about 60 miles E. of Kottayam. *Memoirs of the Archaeological Department of Travancore*, no. 1, pp. 6-7.
38. At Vamanapuram, 22 miles N. of Trivandrum. Information from Travancore State Archaeological Department.

D. PUDUKOTTAI STATE

39. Kolattūr tāluk, ½ mile north of Tāyinippatti village, on Annavasal-Kiranur road. *Report on the Administration of the State Museum Pudukottai*, 1940; *Manual of the Pudukottai State*, II, part ii, p. 1099.
40. Tirumaiyam tāluk, Sittannavāsal village, 2 miles E. of Annavāsa, *Report on the Administration of the State Museum, Pudukottai*, Fasli 1344 (1935 A.D.), pp. 2-3; Ap. 3.
41. Tirumaiyam tāluk, Tuttūr village, on the slope of the Tuttumalai. *Manual of the Pudukottai State*, II, part ii, p. 121.

E. COCHIN STATE

42. Talappalli tāluk, at Porkkalam village, 3½ miles to the N. of Kunnankulam.
43. Koothandan Thande. L. A. Krishna Iyer in *Modern Review*, March, 1946, p. 187.

F. MYSORE STATE

44. Bangalore district, at Chikkajāla village, 15 miles N. of Bangalore: cist-circle cemetery up to 1 mile E. of village. In two cases where the cist is visible there is a port-hole in the E. end. Cover-slabs as much as 15 × 15 feet.
45. Bangalore district, Devanahalli taluk, at Sonnappanhalli village, 13½ miles N. of Bangalore, cist cemetery. Only cist sufficiently visible shows port-hole 2½ feet in diameter.
46. Bangalore district, near Savandurg, 22 miles W.S.W. of Bangalore: large cist-circle cemetery in jungle. Where visible, the cists have port-holes. Some pottery and iron work from these cists in the Bangalore Museum. *Indian Antiquary*, X (1881), pp. 1–12, 99.
47. Chitaldrug district, at Budnapur, about 3 miles W. of Chitaldrug. Information from Mysore State Archaeological Department.
48. Chitaldrug district, at Chandravalli. Information from Mysore State Archaeological Department.
49. Chitaldrug district, at Ganjipatta, about 6 miles W. of Chitaldrug. Information from Mysore State Archaeological Department.
50. Chitaldrug district, Molakālmuru tāluk, near Siddāpur village (Brahmagiri). Present report.
51. Chitaldrug district, at Nandanahōsūr, about 12 miles W. of Chitaldrug. Information from Mysore State Archaeological Department.
52. Mysore district, at Bettadpūr village.
53. Kolār district, at Humgunda village. Information from Mysore State Archaeological Department.
54. Kolār district, at Humgunda village. Information from Mysore State Archaeological Department.
55. Kolār district, at Parendapalli village. Information from Mysore State Archaeological Department.

G. HYDERABAD

56. Atrāf-i-Balda district, at Hashmatpet, about 5 miles from Hyderabad city. (Protected monument.)
57. Gulbarga district, Andōla tāluk, near Jiwarji village, about 3 miles S. of the Bhīmā river, on the road between Gulbarga, Ferozabad and Shorapur. Meadows Taylor, p. 16, *J.R.A.S. Bomb.*, III (1851), 179ff.; IV, 380.
58. Gulbarga district, Raigir, E. H. Hunt in *Journ. of the Hyderabad Arch. Soc.*, 1916, pp. 180ff.; and *Journ. of the Roy. Anthropological Inst.*, LIV (1924), 140ff.
59. Gulbarga district, Shorāpūr tāluk, about 1½ miles S. of Hegaratgi village, 4 miles W. of Rajanakallur, between the Bhīmā and Krishnā rivers and near the bank of the Dona river. Meadows Taylor, pp. 22–25, 92-93, pl. VI.

60. Gulbarga district, Shorāpūr tāluk, near Rajanakallūr village, immediately above the junction of the Bhīmā and Krishnā rivers. Meadows Taylor, pp. 5, 25, 88, pl. I, figs. 3 and 4; Fergusson, p. 469.
61. Raichūr district, at Āgoli village, near Gangāvati.
62. Raichūr district, at Bankal village, near Gangavati, K. M. Ahmad, *Note on the Excavation and Survey of Prehistoric sites in the Raichur district of Hyderabad*, p. 5.
63. Raichūr district, at Kopbal village, near Gangāvati.
64. Raichūr district, Yemmi Guda. Meadows Taylor, pp. 57-58.

H. BOMBAY PRESIDENCY

65. Bijāpūr district, Aihole village, H. Cousens, *Chālukyan Architecture* (A.S.I., 1926), p. 138.

APPENDIX E

The distribution of rouletted ware and painted 'Āndhra' pottery (map, fig. 52)

(i) 'Rouletted ware', since its discovery in association with imported Arretine ware of the second quarter of the first century A.D. at Arikamedu (Pondicherry) in 1945 and the recognition that its distinctive decoration is derived from that ware, has provided a chronological fixed-point in South India. Preliminary enquiry indicates that its distribution was a wide one, and future research may be expected to produce a long list of sites on which its occurrence will be of cardinal value to the excavator. The known sites are as follows:—

A. FRENCH INDIA

1. Arikamedu, Pondicherry. *Ancient India*, no. 2 (1946), pp. 45ff.

B. MADRAS PRESIDENCY

2. Amarāvatī, Guntur district. Ibid., p. 49.

C. MYSORE STATE

3. Chandravalli, Chitaldrug district. Present report.
4. Brahmagiri, Chitaldrug district. Present report.

D. HYDERABAD STATE

5. Konḍāpur, 43 miles N.W. of Hyderabad city. Information from the Director of Archaeology, Nizam's Government.
6. Māski, 65 miles W. of Raichūr junction. Information as above.

E. ORISSA

7. Bhubaneswar, Puri district. Found in Śiśupālgarh (1948). Omitted from map.

(ii) Russet-coloured pottery painted with white or yellow rectilinear patterns is characteristic of Āndhra sites in the Deccan, and is now known to have been in vogue during the first and second centuries A.D. A first list of known sites is here appended:—

A. MADRAS PRESIDENCY

1. Amarāvatī, Guntur district. R.E.M.W.
2. Sanganakal, Bellary taluk, Bellary district. Information from B. Subba Rao.
3. Bellary town. Information from B. Subba Rao.
4. Gurjala, Adoni tāluk, Bellary district. Information from B. Subba Rao.
5. Nagaldinna, Adoni tāluk, Bellary district. Information from B. Subba Rao.

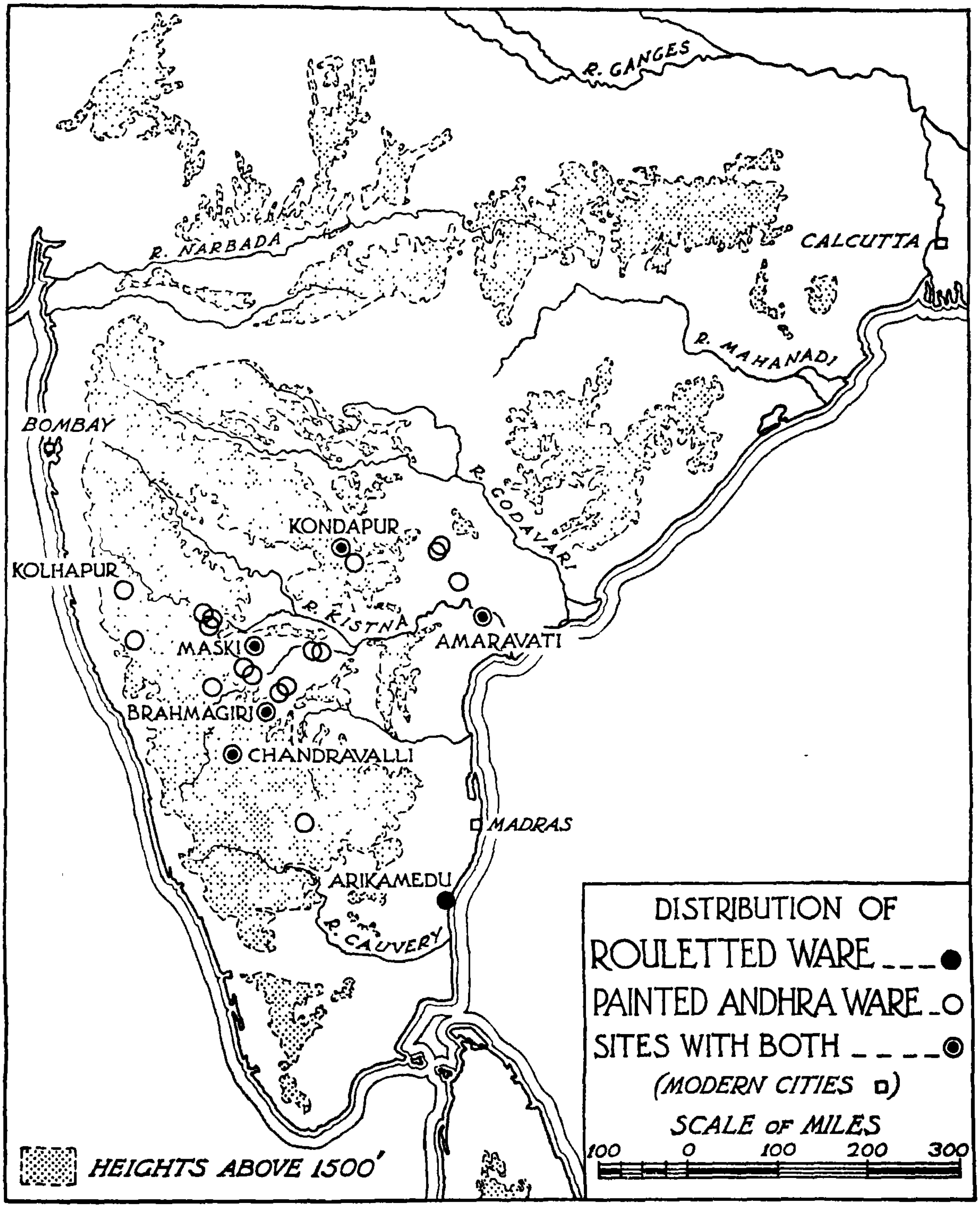


FIG. 52

(Add rouletted ware from Śiśupālgarh at Bhubaneswar, Orissa, 430 miles N.E. of Amarāvatī.)

B. MYSORE STATE

6. Tarmanhalli, 11 miles N.W. of Bangalore. Information from the Director of Archaeology, Mysore State.
7. Chandravalli, Chitaldrug district. Present report.
8. Brahmagiri, Chitaldrug district. Present report.

C. HYDERABAD STATE

(Information from the Director of Archaeology, Nizam's Government.)

9. Koṇḍāpur, 43 miles N.W. of Hyderabad city.
10. Māski, 65 miles W. of Raichūr junction.
11. Tolkattā, 21 miles W. of Hyderabad city.
12. Panigiri, 33 miles E. of Jangaon railway station.
13. Gujulbanda, 4 miles S.W. of Panigiri.
14. Anagundi, on the N. bank of the Tungabhadra river, opposite Hampi. Cf. R. B. Foote, *Indian Prehist. and Protohist. Antiquities* (Madras, 1916), p. 127 and pl. 53.
15. Benkal, 7 miles west of Gangāwati, a tāluk headquarters in the Raichūr district.
16. Nyalakondapalli, 16 miles south of Khammameth.

D. BOMBAY PRESIDENCY AND ADJACENT STATES

17. Itagi, in Shirahatt tāluk, Sangli State, on the banks of the Tungabhadrā river. Pottery in the Kannada Research Institute, Dharwar.
18. Herakal, 5 miles N. of Bagalkot, Bijāpur district. Pottery also at Dhārwār.
19. Siddāpur, about 12 miles from Herakal on the banks of the Krishnā river. Pottery also at Dhārwār.
20. Gundanapalli, N. of Herakal.
21. Vadgāon, near Belgaum.
22. Kolhāpur, in south of Bombay Presidency.

TECHNICAL SECTION

4. FURTHER NOTES ON DIGGING AND RECORDING

This section may be prefaced by two quotations. The first is from the annual report of the archaeological department of one of the leading Indian States, and describes the recent excavation of some important megalithic tombs. It is as follows: 'Where necessary, the dolmens were blasted, the circles of stones were removed and the cistvaens constructed with large flat slabs were made available for study.' As evidence of impartiality, the second quotation is taken from an annual report of the Archaeological Survey of India: 'The maximum number of labourers employed at any one time (in an excavation controlled by one supervisor) was something over thirteen hundred.' These quotations are eloquent of all that an archaeological excavation should not *be. As a partial corrective, a note on 'stratification' was published in* Ancient India, *no. 3, and further notes on archaeological method are added here. It may be emphasized that these notes, though based on long experience, are as tentative as such notes must always be. They represent an advance upon dynamite and mass-destruction, but are themselves capable of indefinite amplification and improvement. They are a guide, not a law.*

1. THE LAY-OUT OF AN EXCAVATION: TRENCHES, AREAS AND SPOIL-TIPS

AN ill-considered excavation is liable to develop into a chaos of pits and trenches, with intrusive spoil-tips that eventually either control the work or are in a constant condition of secondary removal. It is an axiom that an untidy excavation is a bad one, whether the untidiness reside in the general lay-out or in detailed execution. In archaeological fieldwork, the guiding principle 'Have a plan', a carefully thought-out scheme, is no less vital than in other human activities.

The nature of that plan depends upon the character and needs of the site. These are rarely in doubt. The old practice of cutting trial-trenches, of making *sondages*, was generally a substitute for intelligent thinking and clear aiming. It was to a large extent 'shooting into the brown' on the off-chance of bringing down a bird. Trial-trenches rarely prove anything. I have in mind a long and wide trial-trench cut by an eminent archaeologist across a famous site without apparent result; subsequent systematic excavation, initiated on an altogether different basis, proved that the trench had in fact passed through and utterly failed to reveal a building of unique character. True, there is always an element of chance in an excavation, however carefully planned. But scientific digging is not on that account a gamble. The experienced excavator, who thinks before he digs, succeeds in reaching his objective in a large majority of cases. *Have a plan* !

Let us take an example. One of the more obvious needs of Indian archaeology is the methodical excavation of a town-site of the late prehistoric or protohistoric epoch (outside the Gandhāra region). A site of this kind normally bears traces of a former system of fortification. Occasionally, the ruin of some particularly obstinate or bulky structure still betrays its presence in the interior. For the rest, the scene is a complex of pottery-strewn mounds rising perhaps 30–50 feet above the surrounding plain. Where in this relatively immense area can the explorer profitably begin?

One objective sticks out a mile. The moment at which an ancient town built or rebuilt its defences was manifestly one of special importance in its life-history. The construction of

a fortification marked the achievement of something approaching city-status; or it may have marked the advent or threat of a formidable rival, or of political anarchy. It may have been designed to defend the populace, or to control it. And the character of its brickwork or masonry is a fair reflexion of the economic condition of the city at the time, of wealthy and leisurely civic pride or of more slovenly necessity. To what extent were the defences maintained—were there long periods of immunity during which maintenance was allowed to lapse? And finally, were the town-walls riven by an attacker, as were those of Dura-Europos on the Euphrates; or did they crumble into decay as a counterpart to economic decline? These and other questions are of the first importance to the enquiring antiquary or historian. It is along the line of the defences rather than in the buried relics of the bazaar that the excavator may expect first to recognize the major moments, the framework, of the story of the site.

Let him therefore, as a prior task, cut across the line of the fortifications at selected points where it seems likely that the evidence will be most comprehensive. And let his cross-trenches be both wide and deep—wide enough to escape accidental features and to provide ample room and light for observation; deep enough to reach down into the natural soil and so to ensure that the story is complete. Furthermore, let the trenches be carried far enough into the town to relate the defensive system in its various phases with the successive occupations of the town itself.

The accepted three-dimensional method of recording such a trench will be described later (p. 313).

The second task is to ascertain clearly the succession, depth and general character of the occupation of the town by the exploration of an area somewhere near its centre. Although the rule is not invariable, cities commonly grow in a reasonably symmetrical fashion; the original civic centre is likely to remain the focus and to represent therefore the maximum depth of accumulated occupation. This accumulation must of course be explored down to the natural soil.

A method of laying out and developing an area-excavation of this kind is discussed below (p. 315).

The trench or trenches across the fortifications and the central area-excavation have now given us a reasonable vertical conspectus of the site. The next stage in the work is less predictable. It is desirable to find a main gateway and to build up a part of the street-plan in relation to it and to the centre. It may be useful to extend the original area-dig and to supplement it by a second area-dig elsewhere. But the temptation, to which the amateur is prone, to dig here, there and everywhere in the hope of 'finding something' must be avoided at all costs. Many sites have been marred without counterbalancing result by incomplete and unrelated excavations of this kind. It is more important to finish a single limited area than to begin several; at least until the history of the site is sufficiently familiar to justify a 'lateral excavation' at a given stratum, i.e. an excavation designed expressly to uncover the plan of a considerable expanse of the town at a selected epoch. Such lateral excavation should not be attempted until the vertical succession is securely established and the culture-sequence familiar to all engaged upon the work.

A further word about spoil-tips. These should naturally be placed well clear of any possible extension of the excavation—better too far off than too near; if a site which has already been explored is available, so much the better. And above all, it behoves the supervisor to keep a constant eye upon the basket-carriers, whether these be men, women or children. Upon the sustained industry of these useful but not highly responsible folk depend the cleanliness, speed and general efficiency of the digging. Excavations containing heaps of accumulating spoil-earth cannot be efficiently watched and controlled. But there are few tricks of evasion which the basket-carrier will not attempt. One is to carry too

small a load; another is to idle en route; another, to enlarge the tip *from the back*, out of sight of the supervisor, so that rest and conversation may be facilitated (always ensure that the basket-carrier is in sight from start to finish); another is to plead constantly for permission to go to the water-supply or for personal relief, or, worse still, to go off without permission. It pays to keep a strong-minded foreman on the carrier-line permanently, and even to wake *him* up from time to time. In one way or another, the battle between the supervisor and his carriers will be incessant, but it is an essential element in the day's work. A little occasional humour will lighten the task and speed the basket.

Let us now glance for a moment at the lay-out and recording of (*a*) a trench, and (*b*) an area.

(*a*) *The three-dimensional recording of a trench*

The long-established method of recording objects found in a trench which it is not intended to enlarge laterally is represented by the following extracts from a recorder's notebook:—

No.	Measurements	Layer	Object	Remarks
1	IV 6″×3′—5′ 6″	(3) Brown sand.	Iron knife blade 5″ long.	(Sketch.)
2	III 1′ 4″×2′ 5″—6′ 2″	(4) Loose reddish earth with occasional patches of ash.	Spherical agate bead.	In a local patch of ash.

The figure in the *first column* is the serial-number of the find. It is immediately written on the envelope containing the object and/or on the label attached to the object, and subsequently on the object itself; also on an index-card in duplicate (one for the site-index and one for the index classified by categories), which will include likewise all the other particulars of the record.

The figures in the *second column* are the essence of the record, and are derived as follows. Before the digging of the trench is begun, two parallel lines of pegs are laid out, each at a distance of one foot from one of the intended edges of the trench. Thus, if the trench is (for example) to be 10 feet wide, the two lines of pegs will be 12 feet apart. The pegs themselves are not less than 1¾ inches square in scantling and 1 foot 3 inches long, with one end pointed. They are driven firmly into the ground—firmly enough to avoid any risk of accidental dislodgement—and are set *diagonally* with reference to the proposed trench, i.e. with one angle facing the latter. In each line they are placed with these edges 3 feet apart, measured *horizontally*, not along the actual contour of the ground (unless that be level); and an imaginary cross-line joining opposite pairs of pegs in the two main lines must be at right-angles with the latter. See fig. 1.

Every peg is then numbered clearly on each of the two faces nearest to the proposed trench with a serial-number in black paint. With the addition of the Arabic zero, Roman numerals (I, II, III, etc.) are used for the double reason: (*a*) that they are easier to paint than Arabic numerals, and (*b*) that there is no risk of confusing them with the actual measurements of the record. The figures on one of the lines of pegs are distinguished by a dash (0′, I′, II′, III′, etc.). If subsequently it is desired to extend the trench backwards from zero (e.g. down the reverse slope of a rampart), capital letters (A, B, C, etc.) are used for the

successive pegs of the extension, the letters on one of the lines being similarly distinguished by a dash (A′, B′, C′, etc.).

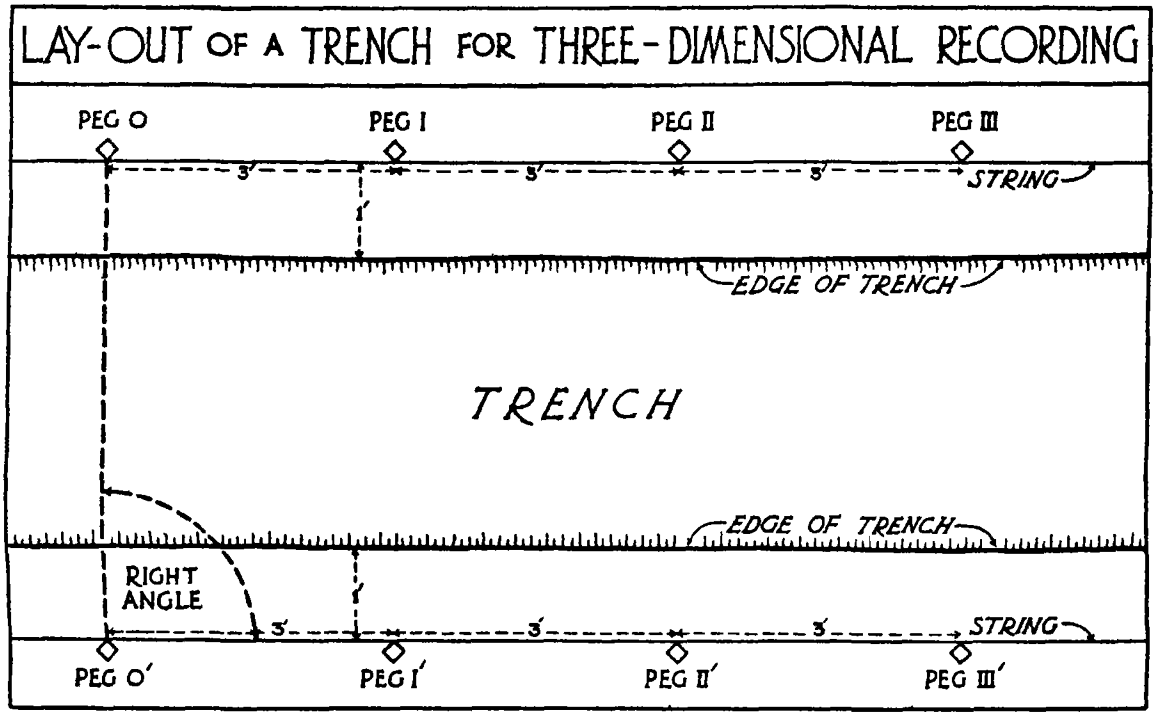


FIG. 1

Along the front edges of each line of pegs a string is then tightly stretched, and is pegged down where this is necessitated by the contour of the ground. These strings are the base-lines from which measurements are subsequently taken.

So much for the preliminary lay-out of the trench. The supervisor must now be provided with an angle-measure, made lightly but strongly of two 3-foot or preferably 4-foot arms graduated in feet and inches and fixed firmly to each other at right-angles (pl. CXXIX, 11). On each arm is fixed a bubble-level. The other normal measuring-instruments—tape, five-foot rule and plumb-bob—complete the equipment.

When the digging of the trench is in progress, the position of every significant find is measured in the following sequence:—

(A) *Longitudinal measurement.* The point at which a line at right-angles from the main datum-string to the object cuts the former is measured along that line from the last preceding peg. The point in question is obtained by means of the angle-measure, levelled by its bubble-levels, with such extension of the outward arm as may be required and with the assistance of a plumb-bob. Thus if the point be at 10 feet 4 inches from the zero peg, it will actually be measured from peg III (9 feet) and will be recorded as III 1′ 4″.

(B) *Outward measurement.* The distance outwards, at right-angles to the datum-string, to a point vertically (by plumb-bob) above the object is measured with the angle-measure, extended by means of the 5-foot rule if necessary. Note that the measurement is recorded from the datum-string, *not* from the actual side of the trench. Thus if the measurement is 2′ 5″, the distance of the object from the side of the trench will be about 1′ 5″. The recorded measurement is added to the longitudinal measurement with a multiplication sign: thus in the present example the measurements so far will be III 1′ 4″ × 1′ 5″.

(C) *Downward measurement.* This represents the vertical depth of the object below the level of the datum-string at the intersection established under (A) above. It is obtained by tape (or rule) and plumb-bob from

the levelled arm of the angle-measure, and is added to the record with a minus-sign. If the depth is 6 feet 2 inches, the total record will now read III 1′ 4″ × 1′ 5″—6′ 2″.

In the *third column* is noted the number allotted to the layer—a number best shown in a circle, a symbol which is in practice useful for distinguishing layer-numbers from other figures—and the descriptive word or phrase by which the layer is named. These facts are of importance, since the *material* in which an object is found is usually certain and provides a check upon the measurements, which may sometimes mislead in irregular strata or near the junction of two strata.

The *fourth column* is self-explanatory. The *fifth column* is useful for additional information and, above all, for a sketch of the object. Even a bad sketch is better than none at all.

It is scarcely necessary to add that the utility of such a record—or indeed of any stratigraphical record—is proportionate to the accuracy of the measured section or sections with which the record is subsequently to be equated. The two sides of a trench are rarely identical, and it will nearly always be desirable to prepare an accurate drawing of both, together with occasional cross-sections. Moreover, during the actual digging it is sometimes useful to project certain categories of objects (from the three-dimensional record) on to the actual sides of the trench by means of labelled or coloured pegs. I have known occasions upon which such a visual representation of a distribution *in the actual trench* has been illuminating and convincing.

Trenches laid out for three-dimensional recording are illustrated in *Ancient India*, no. 1, pl. III A ; and no. 3, pl. XXXVI A.

(*b*) *The digging and recording of an area*

The desiderata of an expanding area-excavation, as distinct from a trench of predetermined scope, may be summarized as follows:—

(i) It must be built up on a system of self-contained sub-units, each of which is sufficiently large to enable the required depth to be reached, and at the same time sufficiently small to ensure ample control and detailed recording and cross-checking.

(ii) It must be capable of methodical extension in any direction.

(iii) It must be readily approachable at all points within its compass by work-people and supervisors without overcrowding the approaches, without interfering with work in progress, and without constantly traversing excavated surfaces.

(iv) And it must preserve for constant reference at a maximum number of points, complete vertical sections until the last phase of the excavation.

Only one type of lay-out normally supplies all these needs: namely, a lay-out based upon a *square*. Experience shows that in soils of average stability the horizontal dimensions of a square excavation should approximately equal its anticipated maximum depth. Thus, if it is intended to dig to a depth approaching 20 feet, the square should be laid out with 20-foot sides. This ratio allows for the necessary stairs and balks. Similarly, a 30-foot square can be dug to a depth of 30 feet, whilst a depth of 10 feet or less demands only a 10-foot square. The smaller the superficial area of the square in relation to its depth the better, provided that there is ample light and working-room. With due regard to these factors, a 10-foot square may be regarded as the minimum sub-unit.

In marking out the square, the supervisor must ensure its initial exactitude; otherwise, subsequent survey is needlessly complicated. At each corner a strong peg, similar to those described above (p. 313) in connection with the recording of a trench, is firmly driven into

the ground, and the exact corner-point should be marked by a two-inch nail driven vertically into the top of the peg. The nail should be left projecting about an inch for the occasional affixture of string or measuring-tape in connection with survey.

These pegs, or rather the nails upon them, mark the true dimensions of the square, e.g. 20 feet by 20 feet. The next step is to mark out with string the actual boundaries of the excavation, which should lie 1½ feet within each measured side. In other words, the area actually excavated within a 20-foot square will have sides of 17 feet only. Between two adjacent squares there will thus be a balk 1½ + 1½ feet, i.e. 3 feet wide. This serves two purposes: it ensures the stability of the underlying section, and (save in wet weather) it provides a gangway on every side of the square for survey and other restricted traffic.

The squares thus laid out may conveniently be named by means of a letter in one direction (say, east to west) and by a number in the other direction (say, north to south). They will thus be known individually as A1, A2, A3, etc.; B1, B2, etc. Each square should be clearly labelled with its index-number.

In the actual digging of a square, a principle of universal application in archaeological excavation may be emphasized: namely, the use of the 'control-pit'. This is the supervisor's own special charge, and upon it the accuracy of the general digging in large measure depends. It is a small cutting, about 2½ feet square, cut by the supervisor himself or by a trained man under his eye, to a depth of 1½-2 feet lower than the average level of the work. Its purpose is to enable the supervisor, with a minimum disturbance of the strata, to anticipate the probable nature and vertical extent of the layers which are being cleared by his main gang. It is a glimpse into the future of his stratigraphical work. Without it, neither the supervisor nor his diggers, working blindly from the top, can avoid the confusion of the lower part of one stratum with the upper part of the next below it. In other words, stratification must always be controlled from the *side*, i.e. from the side of the control-pit, since it obviously cannot be controlled from the top. Control-pits must be sufficiently numerous to minimize risks arising from the unevenness or interruption of strata. And, above all, constant reference must be made to the stratification revealed by the sides of the square as the digging proceeds, and the four sides must constantly be correlated with one another. Any marked discrepancy between them must be considered and an explanation sought. During the search for an explanation the supervisor may find it desirable to suspend or restrict the actual digging.

This raises a further point. In view of the occasional necessity for a temporary suspension of digging in one square or another, the director of an excavation must always have in readiness a sufficiency of 'reserve jobs' to meet contingencies of this kind. Such reserve jobs may include the removal of unimportant top-soil from a new square, or the reinforcement of a gang engaged elsewhere upon the digging of a deep stratum. Remember that, when a gang stops digging, something like six work-people—pick-man, shovel-man and probably four basket-carriers—are thrown out of action. And idleness is both costly and infectious.

In the last two paragraphs I have dealt with matters which are not peculiar to the 'square', although they are liable to present themselves on a busy area-dig in an acute form. I turn now to the actual recording of the square.

A great merit of the 'square' method is that it localizes both control and record. The supervisor's responsibilities are clearly defined, and the area covered by his field-notebook is precise. The basis of his record is a careful interpretation, embodied in an accurate measured drawing, of the stratigraphy of each of the four sides of his square. As in all excavations, the layers are demarcated and labelled with a serial-number as the digging proceeds. Each side of the square is also labelled with its compass-point which is added to the index-number of the square, e.g. B3N indicates the northern side of square B3. And

each side is carefully measured and drawn to a minimum scale of ½ inch to 1 foot, or to a maximum scale of 1 inch to 1 foot (see *Ancient India*, no. 3, pp. 147ff.).

In the process of excavation, it may be found convenient sometimes to work diagonally across the square; for instance, if diagonal walls are found, since sections at right-angles to the line of a wall are essential (see below, p. 318). In such cases the diagonal section must of course be correlated with the side-sections and, if necessary, drawn separately.

All finds will be recorded by strata with reference to the nearest recorded section, normally with the nearest side of the square. Structures, pits or important objects, together with the position of all measured sections, will be planned carefully in the supervisor's notebook in relation to the four surveyed corner-pegs of the square. Finds will be classified in the notebook by serial-number, section-label, stratum, and sketch.

Area-excavations by means of squares are illustrated in *Ancient India*, no. 1, pl. II B, and no. 2, pl. XI A.

2. THE EXCAVATION OF A BUILDING

How would you excavate the buried remains of an ancient building? 'Find a wall and follow it and its offshoots until the whole structure is laid bare' might be the simple and obvious answer. In fact, to do so would be to destroy the related evidence upon which the interest of an ancient building in considerable measure depends. To appreciate this disastrous consequence, let us consider in some detail the nature of that related evidence.

Unless a structure is dated by a contemporary inscription or by unimpeachable documentary evidence or (exceptionally and insecurely) by its intrinsic character, our knowledge of its date or cultural context must be derived from the stratigraphic association of objects of recognizable types. Furthermore, the specific character of the strata themselves—whether resulting from construction, destruction, decay, or other causes—will throw light upon the vicissitudes through which the building has passed. Only the most careful excavation and observation can recover such evidence with sufficient exactitude for use. The dating or cultural setting of a building is based ideally on three categories of objects: (i) those supplied by strata which accumulated before the building was constructed; (ii) those supplied by strata contemporary with the construction; and (iii) those supplied by strata subsequent to the construction. Categories (i) and (iii) *bracket* the structure chronologically or culturally, whilst category (ii) defines the point within the brackets.

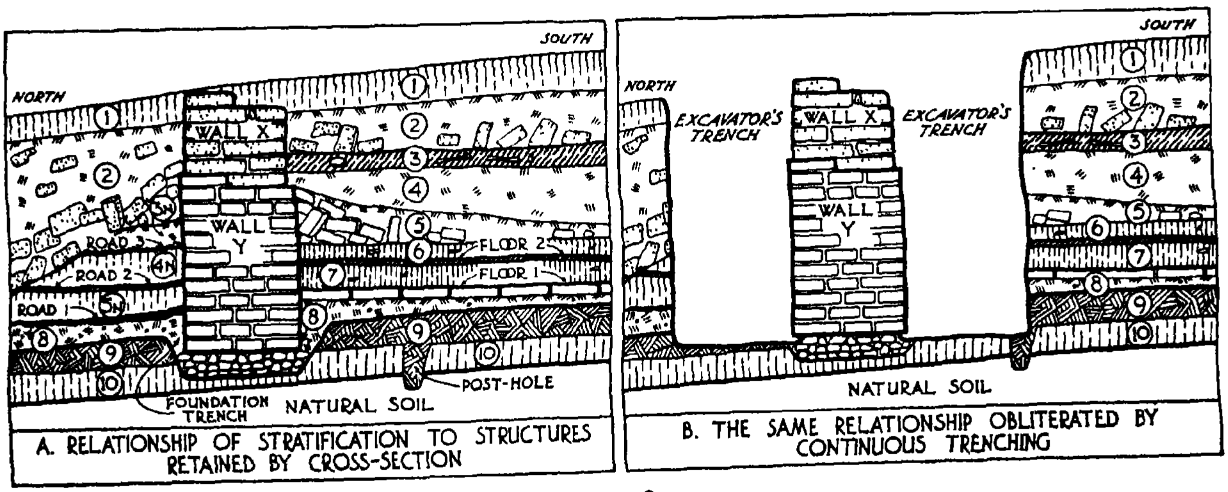


FIG. 2

Fig. 2A illustrates the accumulation of strata under, around and over the wall of an ancient structure. On the right-hand side of the wall-section, over the natural soil, two layers (9 and 10) represent village-occupation of Culture A, with post-holes indicating wooden huts, potsherds, spindle-whorls, etc. Into these layers is cut a shallow trench to take the footings of wall Y, and the flanks of this trench are filled by layer 8, which is also spread (on the right) as a basis for Floor 1. Layer 8 contains only relics of Culture A, but one or two relics of Culture B are imbedded in Floor 1; and the superimposed layer 7, resulting from the occupation of the building, represents Culture B exclusively. Over this occupation-layer, a new rammed floor (Floor 2) is laid, and on it is a further occupation-layer (6) of lesser extent, still containing objects of Culture B in a somewhat evolved form. On this occupation-layer, a cascade of bricks mixed with burnt timber and clay (layer 5) indicates the destruction of the building by fire. Thereafter the stump of the wall is used as a foundation for a mud-brick wall (X) of lighter construction, associated with an earthen floor (layer 3) containing relics mostly of Culture C. This new structure represents an intrusive culture of inferior quality, immediately preceded by the violent destruction of Culture B, and may (if the evidence is found to be typical) be interpreted perhaps as a semi-barbarian supersession of Culture B in an evolved phase of the latter.

On the left-hand side of the wall-section, the same two pre-wall strata (9 and 10) are continued, but are superseded at the wall-level by a well-metalled street (Road 1). This metalling is renewed at intervals (Roads 2 and 3), the upper metalling being inferior to the lower and suggesting a decline in municipal standards. Finally, in association with the mud-brick wall (X) of Culture C, metalling ceases, and traffic gradually wears the street into a hollow, removing earlier strata in the process. This process of road-deepening may be seen in many Indian villages at the present day, and serves to remind us that the passing of time may be represented stratigraphically by denudation no less than by aggradation.

In practice, the identification and interpretation of the stratigraphic evidence associated with a building are rendered possible only by the preservation of extensive cross-sections in the process of excavation. In other words, the preliminary excavation of a wall consists, not in clearing it continuously, but in cross-trenching it at frequent intervals each cross-section being closely examined and correlated with its neighbours. Only when an agreed interpretation of these cross-sections is achieved and recorded, can they properly be removed, stratum by stratum. Even so, it is wise to keep a typical cross-section in position for reference until the last stage of the excavation.

Fig. 2B shows the unhappy consequence of the wholesale clearance of a wall along its two faces. The relationship of the wall with the adjacent strata has been lost beyond recall, and the sequence indicated above is irrecoverable. Excavation has devolved into irreparable destruction.

3. EXCAVATION EQUIPMENT

Inadequate tools are not an excuse for bad work. No responsible archaeologist will undertake an excavation without adequate staff and equipment, save in the direst emergency. In detail, the tools will vary with the locality, but their general range is indicated by pl. CXXIX, illustrating typical equipment from the stores of the Archaeological Survey of India. A few notes may be added.

Pl. CXXIX A

1. *Pick* (Hindi and Urdu, *baṛī gaintī*; Bengali, *baṛo gãintī*; Tamil, and Telugu, *pikkāsu*; Malayalam, *pikkāssa*). This is the primary instrument in excavation, not merely for the general loosening of the ground, but also, properly controlled by a good workman, for comparatively delicate work, for which its weight gives it a relatively effortless control.

The tool is easily misused, and the pickman requires special watching and training. For example, the tendency to use the broad end must be checked—the pointed end does less accidental damage. And it is often desirable to avoid hammering every scrap of earth with the pick, but rather to use the instrument as a wedge with which to lever off considerable lumps of earth, driving in the point well back from the cutting-face for this purpose. Above all, except in strata known to be of considerable depth, prevent the pickman from driving the pick too deeply into the soil. 'Wholesale' digging obscures the evidence. Lastly, having loosened a reasonable quantity of earth, the pickman should stand aside and leave the spot free for clearance, observation and detailed work. A good pickman will *think* with the end of his pick, observing not merely with his eyes but also by slight differences in the 'feel' of the earth as he cuts it.

2, 3. *Small pick* and *trenching-tool* (Hindi and Urdu, *chhoṭī gaintī*; Bengali, *chhoṭo gāintī*; Tamil, *śinna pikkāsu*; Telugu, *chinna pikkāsu*; Malayalam, *cheriya pikkāsu*; Kannada, *guḍli*). This is essentially the digging-tool of the foreman or supervisor, or of a specially experienced workman. The lightness of this instrument makes it particularly sensitive to slight changes of soil or even of sound—for example, in working towards a mud-brick wall. With the knife, it is useful for disengaging objects from the soil. It is the normal instrument for the digging of the 'control-pit' (above, p. 316), where the supervisor is working in unknown material. The broad end of the trenching-tool is useful as a shovel in small-scale work of this kind, but generally the simple pick of type no. 2 is less cumbrous and more sensitive. A word of warning: a lazy workman will always try to exchange his large pick for one of these small ones, so that he may squat and peck idly at the surface with a minimum of effort. The supervisor will soon learn to detect the difference between the escapist and the honest man who is using the small pick for a good and intelligent reason.

4, 5. *Shovels* (Hindi and Urdu, *phaoṛā* or *belchā*; Bengali, *kodāl* or *belchā*; Tamil, *maṇveṭṭi*; Telugu, *salakapāra*; Malayalam, *kai-k-koṭṭu*; Kannada, *maṇubeṭṭi*). In English, 'spade' and 'shovel' are distinguished from each other; the spade having a flattish oblong blade and being used both for cutting and for lifting, the shovel having a slightly hollowed and pointed blade (cf. no. 5) and being used almost exclusively for scooping and lifting. In India we are concerned mainly with scoops or shovels of various kinds, although in soft soil an instrument such as no. 4 can also be used for rough cutting. In this fashion it is useful for moving dumps of unstratified material, but it should normally be used only for basket-filling.

6. *Turf-cutter* or *trimmer* or *edging-knife* (Hindi and Urdu, *bel*; Tamil, *pulchedukki*). This is an essential instrument. Its feature is a sharp crescentic blade (the example illustrated has been flattened in profile by wear) in the same plane as the handle. It is used for the very important task of trimming the sides of cuttings to a clean, vertical face, without which proper examination and record are impossible. It should not, however, be used for substantive digging, partly because it is not strong enough for the purpose but partly also because of necessity it cuts clean through any fragile object that comes in its way. Upon the proper use of the *bel* in large measure depends the cleanliness and effectiveness of an excavation.

7. *Knife* (Hindi, Urdu and Bengali, *chhuri*; Tamil, Telugu, Malayalam and Kannada, *katti*). This is the indispensable and inseparable instrument of every supervisor and foreman. Indeed, it is almost a badge of rank; without it, the supervisor can scarcely begin upon his task. The uses of the knife in the detailed examination of a section are almost infinite. It is used, for example, for cleaning and checking difficult sections, for testing by pressure, 'feel' or sound subtle differences in the soil. It is of primary use in the careful extraction of objects from the soil. It is essential in the final preparation of almost every subject for photography. It is a useful marker in survey. It has indeed a hundred uses.

A pointed mason's trowel is a possible substitute, but on the whole a good knife with a blade about 7 inches long is the better instrument. It should be a treasured personal possession.

8. *Basket* (Hindi and Urdu, *ṭokri*; Bengali, *jhuṛi*; Tamil, *taṭṭu-k-kuḍai*; Telugu, *taṭṭa*; Malayalam, *koṭṭa*; Kannada, *maṅkri*). Made of reed or cane. Used (*a*) for the removal of spoil-earth, and (*b*) when properly labelled with a tie-on lable indicating site and stratum, for collecting pottery in the field. The life of a basket can be extended by reinforcing with wire. For the removal of dusty soil, the inside can be coated with mud or cow-dung or a rag. It should be a matter of routine to ensure that no clod of unbroken (i.e. unexamined) earth is ever included with the dust. When baskets are not available, light iron pans of similar size may be substituted.

9. *Scale* (Hindi and Urdu, *paimana*; Bengali, *māp kāṭhi*; Tamil, *aḍikkol*; Telugu, *kolatabadda*; Malayalam, *āśārikkōl*; Kannada, *aḍikōlu*). This is a scale of two feet, one foot being subdivided into inches. The use of a scale, proportionate to the size of the subject, is an elementary necessity of every photograph and need not be further discussed.

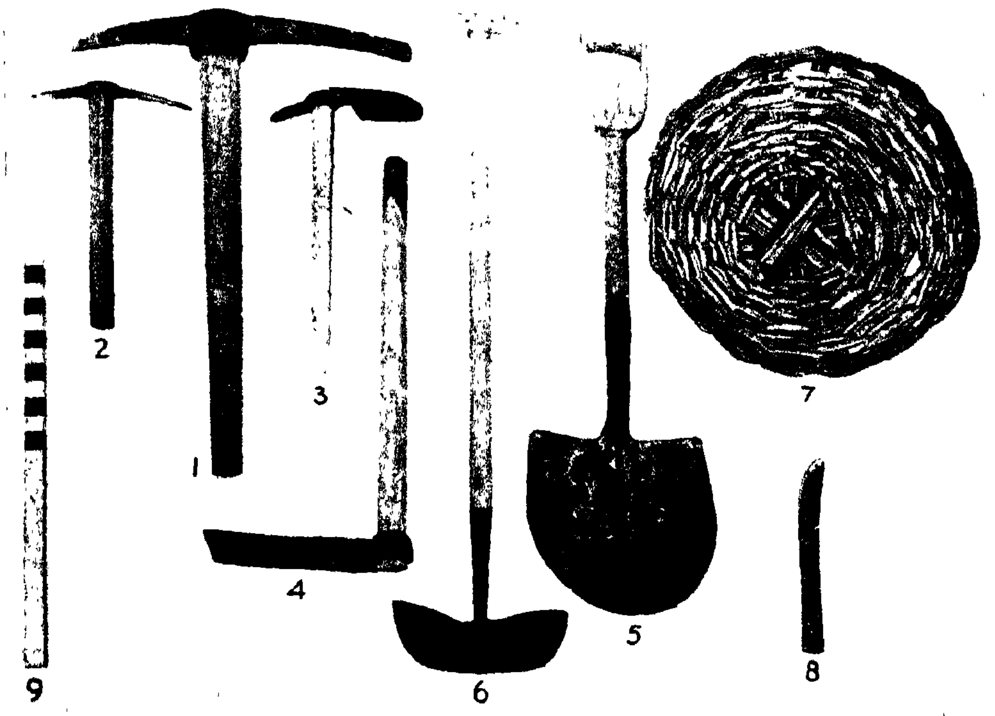
Pl. CXXIX B

10. *4-foot measuring-pole* (Hindi and Urdu, *nāpnekā ḍaṇḍā*; Bengali, *māp-ḍaṇḍa*; Tamil, *nālaḍi-k-kōl*; Telugu, *nālugu-aḍi-karra*; Malayalam, *nālaḍikkōl*; Kannada, *nālu-kaḍikōlu*). Good 4-foot, 6-foot and 8-foot poles are essential, both as photographic scales and for surveying. Their paint should be renewed periodically; a scarred pole is an eyesore and a symptom of much else that needs attention.

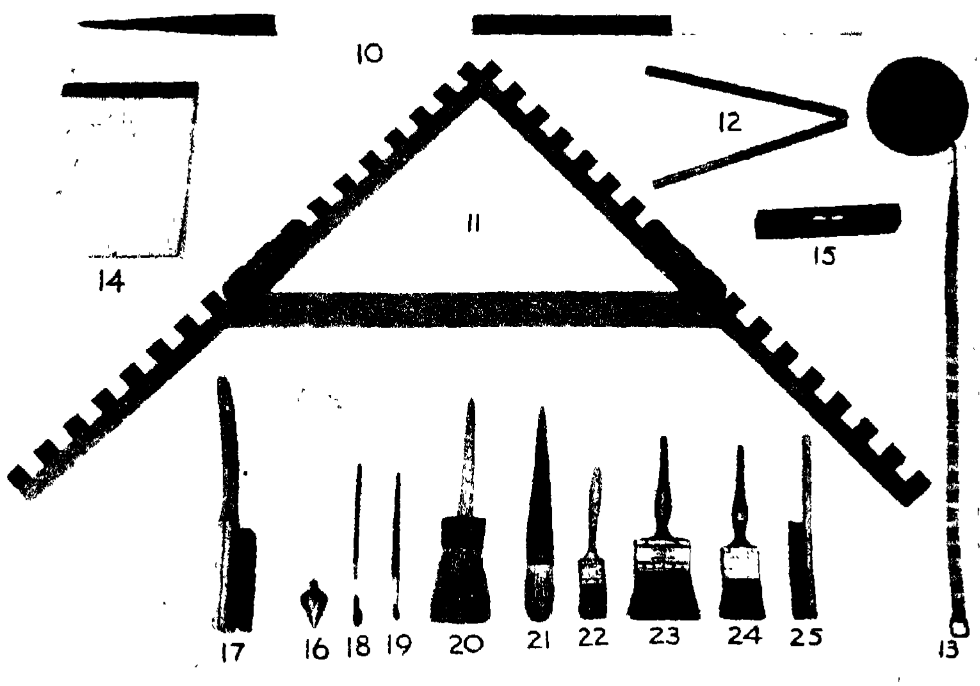
11. *Angle-measure* (Hindi, Urdu and Bengali, *guniā*; Telugu, *mūla-maṭṭa*; Tamil and Malayalam, *mūlamaṭṭam*). For the use of this instrument see above, p. 314. Each arm is graduated in feet and inches and bears a bubble-level. The example illustrated is not a good one; its construction is somewhat too massive (on the other hand, complete rigidity is essential), the foot-graduations are not clearly marked, and the arms could usefully be 4 feet long instead of 3 feet. But it serves to represent the type.

12. *2-foot folding rule* (Hindi, Urdu and Bengali, *dofuṭṭa*; Tamil, *jāti aḍi*; Telugu, *maḍata badda*; Malayalam, *blāti-k-kol*). This must be in the pocket of every supervisor, and is only less essential than the knife.

13. *100-foot measuring-tape* (Hindi, Urdu and Bengali, *phītā*; the word *tape* is generally understood). Every sub-unit of an excavation must have its measuring-tape, which must be marked clearly with the name of the sub-unit or its supervisor and the *date* when it is first brought into use. Only reinforced cloth tapes should be used and, even when reinforced, every tape stretches with use; hence the value of the date or 'vintage'. Owing to tape-error, it is essential that the sub-units of a plan shall be measured with the same tape. Worn figures on a tape are a trap even for the careful worker, and should always be renewed. Another pitfall is that of the figures '6' and '9', which are liable to be read upside-down by the careless worker. A tape is worth all the care that can be bestowed upon it. For instance, if it gets wet or muddy, it should be carefully wiped clean and slowly dried before winding—a precaution which is very likely to be overlooked by the worker who is probably also wet and muddy; but the worker will not shrink or stretch, whilst the tape will, and good tapes are hard to obtain. If the tape sticks in winding, do not force it. Unscrew the brass reel and release it. Avoid using tapes which have lost bits at the ring-end: 'zero on this tape is 1 foot 3 inches' introduces a mathematical complication beyond the capacity of any supervisor whose mind is on his real job. Avoid the use of metal tapes for any length above a yard or a metre; they kink, spring about over the landscape, and get rusty. Also, they are often hard to read save in a very good light. In reading out measurements



A



B

Representative excavation—equipment

to a recorder, insist upon his repeating every measurement. Telephone-users know how easily certain numbers are confused with one another. (It is a good thing for the recorder occasionally to read back a wrong number deliberately—it keeps the measurer on the alert.)

14. *Supervisor's notebook* (Hindi and Urdu, *likhnekī kāpī*; Bengali, *khātā*. The word *notebook* or *note-pustaka* is generally understood). The sub-unit notebook is the final test of the supervisor's capacity. Its importance as the primary record of his work cannot be exaggerated, and every notebook must be inspected at frequent intervals during the work by the director of excavations. I find in practice that a notebook 11×8 inches, opening longways, strongly bound in cardboard covers which open flat, containing 25–30 leaves ruled horizontally on the right and printed in one-inch squares (each with $\frac{1}{12}$ inch subdivisions) on the left, meets all normal needs. The squares and sub-squares will naturally be varied for a metric system. Every notebook must bear the names of the site and sub-unit, the name of the responsible supervisor, and the dates during which it has been maintained. Every page should be numbered, and the first page must be reserved for an index—a good index is essential. Accurately measured plans and sections will be prepared separately; plans and sections in the notebook will usually be approximate only, and will serve rather as a careful pictorial index than as a final record. There should be plenty of them. The day's work must, without fail, be written up on the same day, even if a temporary cessation of digging is occasionally necessary for the purpose. Every 'square' in an area-excavation must have its own special notebook.

15. *Bubble-level* (Hindi, Urdu and Bengali, *level-paṭṭā*; Tamil and Telugu, *rasamaṭṭam*; Malayalam, *nīr-maṭṭam*). This requires no comment. It is essential for levelling survey-strings on sections, for levelling the camera, for ascertaining the direction-of-fall of drains, and for other purposes.

16. *Plumb-bob* (Hindi, Urdu and Bengali, *sahal*; Tamil and Malayalam, *tūkku-kuṇḍu*; Telugu, *tūkku-guṇḍu*). Of constant use in taking measurements—see, for example, above p. 314.

17–25. *Brushes* (Hindi, Urdu and Bengali, *burush*; generally understood as *brush* or *burushu*). A considerable range of brushes, down to the size of a small water-colour-brush, is essential for the preparation of sections and objects for inspection or record. (Sections should not, as a rule, be brushed since the materials of adjacent strata are liable thereby to be confused and obscured.) Have plenty of brushes, hard and soft, large and small. Occasionally another cleaning-instrument, not illustrated, is of use: namely, a blow-pipe. Any 1-foot or 2-feet length of metal tubing of reasonably small calibre will do. The blow-pipe is particularly useful in the final cleaning of fragile bones.

Lastly, not illustrated, a good prismatic oil-compass is essential; e.g. for recording the orientation of burials or tombs, or for rough survey.

R. E. M. W.

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Contributions dealing with the archaeology of India and the adjacent lands are invited to *Ancient India*. They should be concise and adequately documented, and should include new matter or a new treatment of old matter. Articles merely reproducing familiar facts or views will not be accepted.

Illustrations may be either photographic or in pen-and-ink, but must be of high quality.

Typescript (on one side of the page only) and illustrations should be submitted to—

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